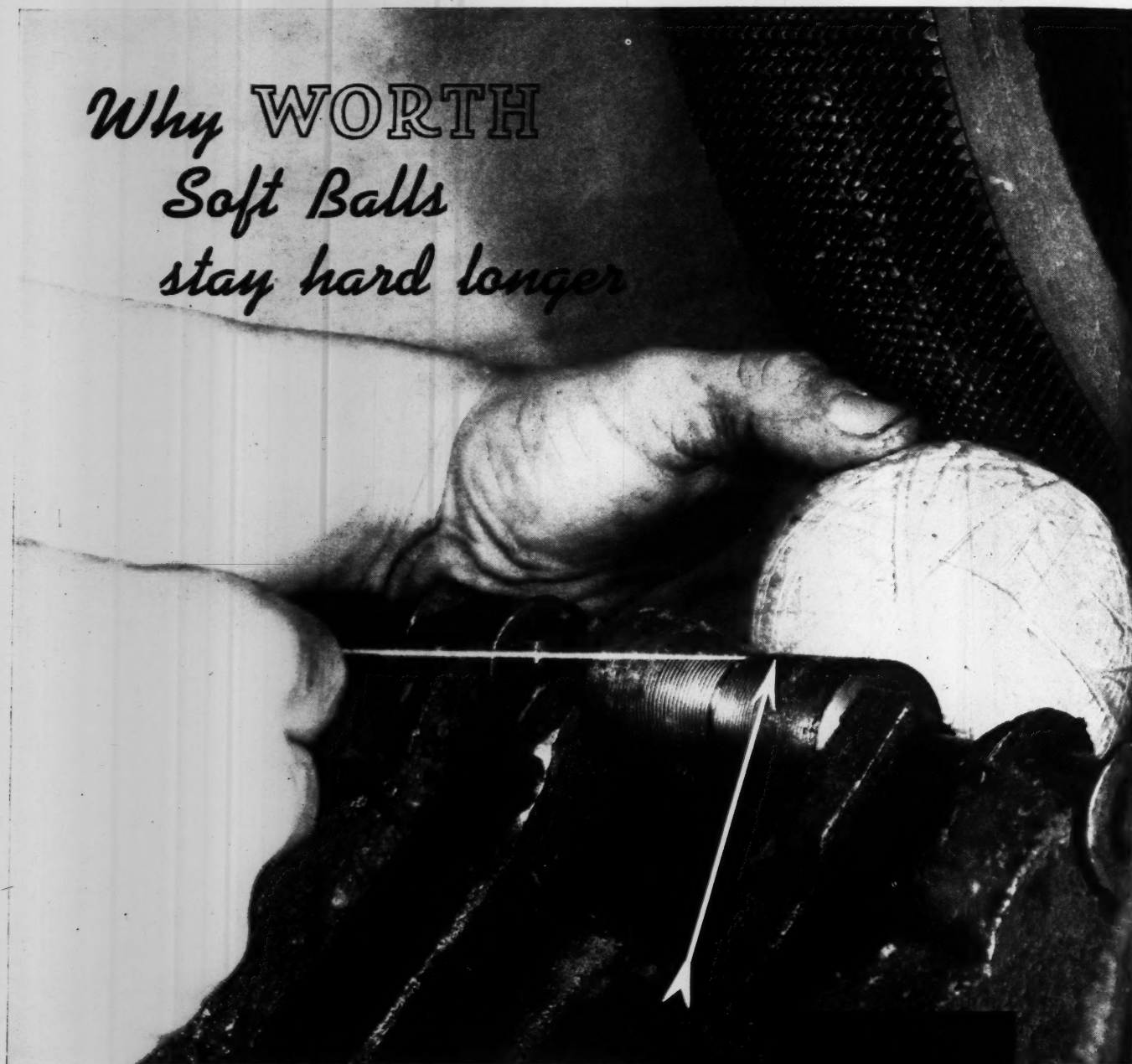




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JOE DI MAGGIO. A favorite that carries Joe's own endorsement. Firm one-piece palm and thumb prevents ripping — makes a better pocket. Special high-quality leather. For right or left hand players.

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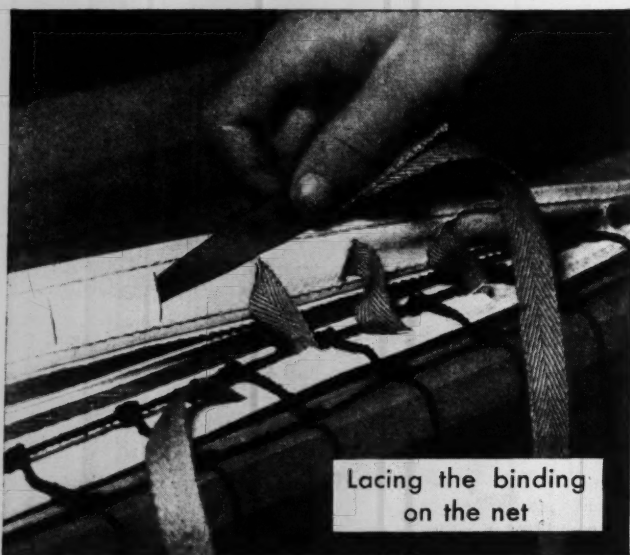
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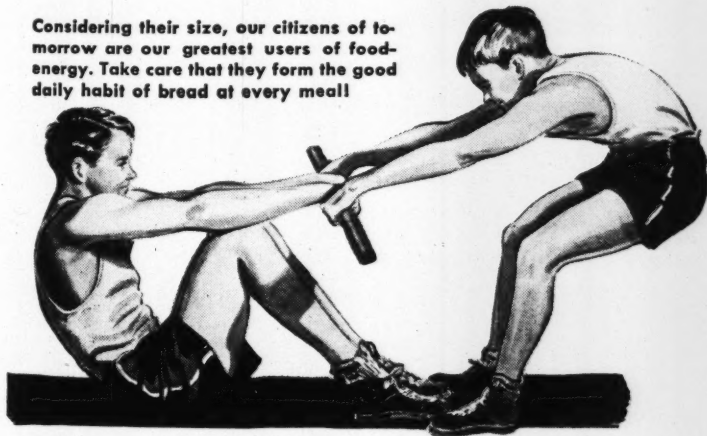
Bread or toast with every well-balanced meal helps supply sustained food-energy needed for endurance.



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Considering their size, our citizens of tomorrow are our greatest users of food-energy. Take care that they form the good daily habit of bread at every meal!



FORWARD GOES AMERICA in a march to greater national strength! And the task is not only one of more machines, more factories, more ships and planes. It's a march towards greater *physical* fitness of every man, every woman, every child.

Every teacher of youth can play a part—by advice on physical care and diet.

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Bread is tempting, delicious, satisfying. Encourage your pupils to form the good habit of bread with every meal.

For further information about Bread, write to the Department of Nutrition, American Institute of Baking, 10 Rockefeller Plaza, New York, N. Y.

BUY BAKERS' BREAD

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GYMNASIUM EQUIPMENT

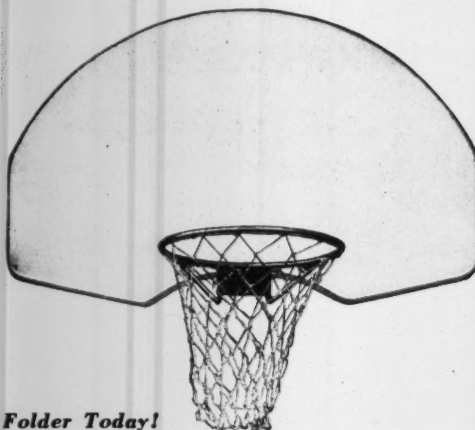


Physical education calls for **BALANCED** development. **BALANCED** development means development of the upper body as well as of the legs. Only gymnasium exercises provide adequate development of the upper body. You can't have gymnasium exercises without gymnasium equipment.

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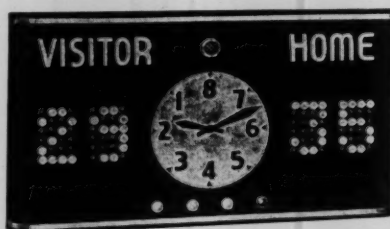
The New All-Steel FAN-SHAPED Basketball Bank!

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Write for Free Illustrated Folder Today!

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The only basketball score board with **SELECTIVE CONTROL!** Punch the button and the number you want lights up. No backing up—no running through ten digits to correct a mistake. All electric and fully automatic—yet, no motors or magnets. Fool-proof **DIRECT WIRING** throughout.

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WRITE FOR OUR COMPLETE GYMNASIUM CATALOG

72 Years Old
THE J. E. PORTER CORPORATION OTTAWA ILLINOIS

Manufacturers of the famous "Louden," "Chicago" and "Spalding" lines of Gymnasium, Playground and Swimming Pool Equipment; and of "Jungle Gym" Climbing Structures.

NEW EQUIPMENT

Sanitizing Agent

Perchloron, product of the Pennsylvania Salt Mfg. Co., efficiently takes care of pool sanitation, helps control slime and algae growths, and combats athlete's foot when placed in shallow rubber trays through which athletes must step. Many pools use it for disinfecting locker rooms and washrooms. Containing more than 70% chlorine, it is a dustless, free-flowing granular material from which the chlorine is readily dissolved in water. It keeps well and holds its strength.

New Footballs

W. J. Voit Rubber Corp. announces three new additions to its "Regulation" line of footballs. Each is Form-Bilt, fabric-lined and cord-wound. First is a new "JF1" which is approved as official for high school six-man football. Second is a new "JF6," similar to the first but smaller, and designated as official for junior six-man football. This ball is 10 1/2 inches long and weighs 13 ounces. The third new type is "JF7," which is official for "Bee Ball," a popular new game, rules for which may be obtained from Voit. In addition to these balls, Voit features a fabric-lined, rubber-covered "Enduro" and "Regulation" in regulation sizes, and the all-"Rubber"—a junior size ball.



Athletic Supporter

Something entirely different in the way of athletic supporters—a supporter made in one piece of resilient, tough Latex—is now being manufactured by the Hood Rubber Co. and distributed by the Champion Knitwear Co. The Arra Sporter can be washed after each use in ordinary water. The straps are carefully designed to lie flat against the body without any feeling of tightness or binding. Furthermore, it retains its live stretch with no loss of elasticity through constant use.

Tennis Net

The Champion Tennis Net is the Linen Thread Co.'s greatest improvement since Dreadnought. Owing to a unique method of attaching the top binding to the webbing by lacing, Champion presents the ultimate in wear and durability. The top binding—of the best quality heavy duck, weather-proofed—is folded in such manner as to offer three separate thicknesses of fabric at the top, immediately over the rope or cable. The net is tape bound on bottom and ends, and equipped with a patented loop construction at the bottom corners.

Name Seals

Players who have their tennis, badminton or squash rackets restrung with the Thompson Mfg. Co.'s specially chrome-welded gut, are supplied with a solid gold-plate Name Seal

which tacks to the butt of the racket. The seal, which shows the name of the player in gold letters on a cardboard insert through a glassine window, protects the racket against theft and accidental exchange. A special process which fuses the gut strands makes the strings more resistant to breakage from moisture, cutting or fraying, without reducing the resiliency of the string. These chrome-welded strings not only last longer but stay livelier longer than strings which have not received the special processing.



Nylon Racket Strings

Racket strings made of Nylon, the same material that captured public attention in women's hosiery, are now being manufactured by E. I. Du Pont de Nemours & Co. Nylon comes in a single strand, not a twisted assembly of many strands, not a braid. This means that they will not fray in use. They're moisture-resistant as well. The water-repellent single strand needs no surface coating of lacquer or varnish. And gone is the need for "dope" to impart a high sheen to the finished job and provide resistance to dampness.

Leather Dressing

Snowshoe Labs. features a waterproof leather dressing that replaces lost oil in your leather athletic equipment and keeps it soft and pliable. Snowshoe has a faint, pleasing odor and is composed of the purest mineral oils obtainable. It makes no mess whatever and does not stain the hands or materials with which it comes in contact. It may be used to preserve and beautify all kinds of leather except suede.

SUCCESS STORY

AS WRITTEN BY

5200 COACHES



SEAL-O-SAN

SEAL AND FINISH FOR GYMNASIUM FLOORS



FUNDAMENTAL STRATEGY

Applying non-slip Seal-O-San prevents skids, falls, infections—assures peak condition.

TO A MAN, 5200 coaches regard Seal-O-San as a "must" for a successful basketball season.

And why not? To each, the 100% non-slippery Seal-O-San finish has brought rewards every coach cherishes . . . improvement in individual and team play . . . victories . . . success.

But the application of Seal-O-San gives these top-flight coaches a playing surface that is more than slip-proof. It gives them a sanitary, germ-free floor as well. For Seal-O-San fills and smooths every germ-harboring crack and crevice, to guard players against infection from cuts or floor burns. With squads at peak strength always, teamwork "clicks" for the victories that put teams in the championship class.

On maintenance too, Seal-O-San proves its value, for the clean, bright surface seldom needs scrubbing—only occasional wiping with an oil mop to remove the surface dust.

You can take the first step toward putting your team—and yourself—near the top next season by putting a non-slippery Seal-O-San finish on your gymnasium floor now. With the endorsement of 5200 successful coaches behind it—it must be good!



CHAMPIONSHIP PLAY

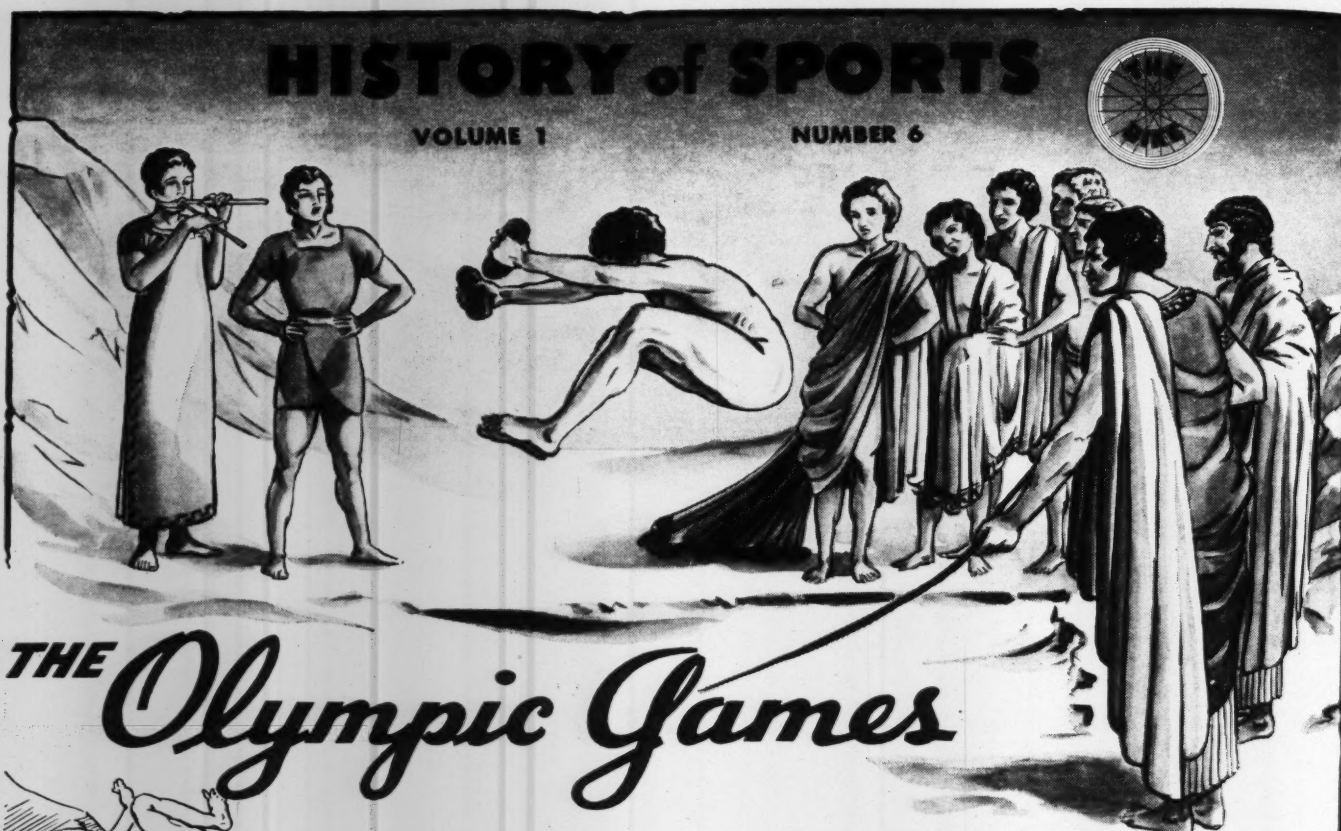
Sparkling play on Seal-O-San by an injury-free squad brings victories, crowds . . . prestige.

The HUNTINGTON LABORATORIES Inc.

DENVER

HUNTINGTON, INDIANA

TORONTO



Ancient Olympics lived 1162 years. Originally a local festival in honor of Zeus, the ancient Olympics soon drew athletes and spectators from all over Greece. So important did these quadrennial meets become that the Greeks estimated time by them, calling the 4-year period between each one an Olympiad. The first recorded Olympics were in 776 B.C. And they continued to be held, even during the Persian Invasion, until abolished after the 292nd consecutive meet.

Rules and Contests. Only amateurs of pure hellenic blood could enter the ancient games. No women were allowed as contestants or spectators. Contestants had to pass a severe ten months training period to qualify for the games. Most popular single events were running, boxing, wrestling, and throwing the javelin—because they were considered the best training for war. An outstanding event, the Pentathlon, combined running, jumping, wrestling, throwing the javelin and discus. Crowds sat patiently for days to see the games

and cheer their home town favorites. After the Roman Conquest, professionalism set in, resulting finally in such bloody clashes between Roman and Greek soldiers that Theodosius abolished the Olympics in 393 A.D.

Revival of Olympics 1896. Visualizing modern Olympics as a great amateur meet to promote good sportsmanship and international amity, delegates from various nations met at Paris in 1894 and formed the International Olympic Games Committee. In 1896, after a lapse of 14 centuries, the Olympics were reborn at Athens. Since then, with the exception of 1916 and 1940, Olympics have been held every four years. In 1932 events were added for women. Field and track are most popular events, although winter sports and team games are large drawing cards. Athletes from 53 nations compete in these modern games. American athletes have scored highest totals in the track and field events of every Olympic to date.



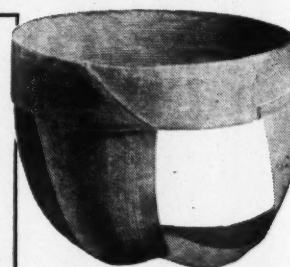
MODERN GAMES CALL FOR MODERN EQUIPMENT!

In the modern Olympics every popular sport has its place—team contests and single events. And in almost all of them the supporter plays an important role. The need of a good supporter—one that gives dependable, lasting support—is recognized by every coach and trainer. For these important reasons Bike has been the standby of most athletes for years.

The continuous popularity of the Bike Supporter attests to the reliability of this quality product. Let the leader support your teams—next time order BIKE!

Bike has these important features!

1. Scientifically designed for proper fit.
2. Bike webbing assures maximum comfort and wear, freedom from chafing.
3. All Bike pouches are either shaped or formed to insure better fit.



SALES AGENTS: A. S. Callaway & Co., 306 Broadway, New York • Martin & Martin, 5 South Wabash Avenue, Chicago • McDonald & Billmire, 604 Mission St., San Francisco • John H. Graham & Company, Inc., 105 Duane St., New York • H. B. Hughes, 1209 N. Edgefield Ave., Dallas

BIKE WEB MANUFACTURING COMPANY

DANA E. MORRISON, President
41 West 25th Street, Chicago

EVER wonder how it feels to be 250 feet in the air with only a pair of skis under you? We have—often, but never let curiosity get the better of us. Whizzing down a precipitous chute at 60 miles an hour and then jumping into space is not our idea of spending a gay afternoon. Even the thought terrifies us. What does a jumper think about while brushing the clouds out of his hair? We'd imagine the ground below looks more like a snowy grave than a landing field.

A few Saturdays ago we had a chance to satisfy our morbid curiosity—without straying too far from our cozy fireside. Torger Tokle, the champion amateur jumper, went off the Olympic 80-meter jump at Lake Placid while wired for sound. He broadcasted his impressions through a special mike welded to a catcher's mask on his face.

Unfortunately our radio contacted delirium tremens that day, and we missed the broadcast. Out of commiseration for the ski equipment manufacturers, we hope he made a two-point landing—on his feet.

Incidentally, Tokle's trick broadcast was not the first of its kind. A couple of years ago a professional basketball player gave a dribble-by-dribble account of a game in which he participated at the same time. If the fellow was anything like some of the pros we know, the broadcast must have been a darb.

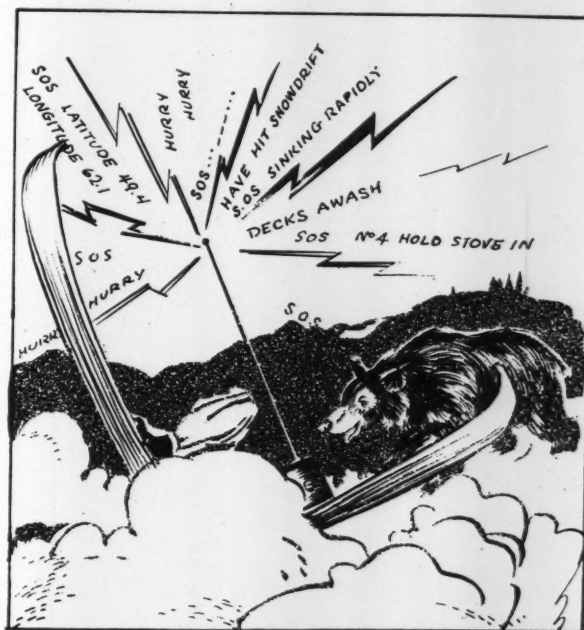
Can you hear him pleading with the ref, "Aw gee, mister, I didn't hack him. Honest I didn't. He ran into me. Please don't give him two shots."

Or, "I'm dribbling down the court, folks. And do I look good. My head is up and my tail low. There's the rat who put his finger in my eye the last time. I'll fix him. Bam! Thwack! That wasn't static, friends. That was him. I'm going to lay up the ball now. Upsa daisy. Zowie! Where did that guy come from? Hey ref, whassa matter, are you blind? Didn't you see him hit me on the head with the backboard? What! no foul. I ask you, folks, what can you do with a blind referee?"

As far as we know the radio hasn't reached into the baseball diamond as yet. But it won't be long now before you'll be hearing:

"Good afternoon, ladies and gen-

tlemen of the radio audience. This is Swat McGreenberg of the Philadelphia Cream Cheeses stepping into the batter's box. You know me. I'm the guy who never played for the St. Louis Cardinals. The day is warm and a good crowd's on deck. There's



"February 22: Torger Tokle, champion ski jumper, carries microphone on jump; tells world how it feels."

a man on second and third and one out. A hit will win the game. That bum, Hunter, is chucking and he's got the count up to tuh and tuh. Boy, will I murder the next one.

"Here it comes! It's a hook across the outside corner. Can I hit it? Will I score the runners on second and third? Will the Cream Cheeses win?"

"We interrupt this broadcast for the latest war news. England: 2 air raids, 14 hits, no errors; Germany: 1 raid, 6 hits, 2 errors."

"Howya, folks, this is Swat again—walkin' out to the outfield. Tune in again in about two innings for another breathless episode with me at bat. Meanwhile, 'Take me out to the ball game, take me out to

the... 'Oops! Sorry, listeners, that's an ASCAP tune. How's the spaghetti comin', Mabel?"

JUDGING from the bounds we've been catching on the sidelines, many of our basketball coaches are worrying over the physiological effects of racehorse basketball.

Since the center tap's been purged, play is practically continuous. The ball rockets back and forth. Players sweep like tornadoes for one end of

the court. When they get there, pop! up goes the ball. And zip! back they scoot. You daren't blink your eyes while the ball's in play. You may miss two baskets.

Certainly this is a swell game to watch. But can flesh and bones stand the pace? In abolishing the center jump, did we get something worse? A lot of men think so. Leo Fisher, for example, ignites the current issue of *Esquire* with these combustible tidbits:

"Basketball, as played today, is wrecking the future health of thousands of our youngsters!

"What was once a recreational pastime has been 'needed' into a frenzy of harmful action through radical rule changes in the past few years.

"High school and college athletes are being 'burned out' (italics are ours) by the fastest, most exhausting and most nerve-wracking sport since ancient gladiators were tossed in to joust with ferocious lions and tigers.

"... watch the heart-disease curve go up and up... racehorse basketball is sowing a crop of ailing tickers

that many of today's young players will reap regretfully in later life."

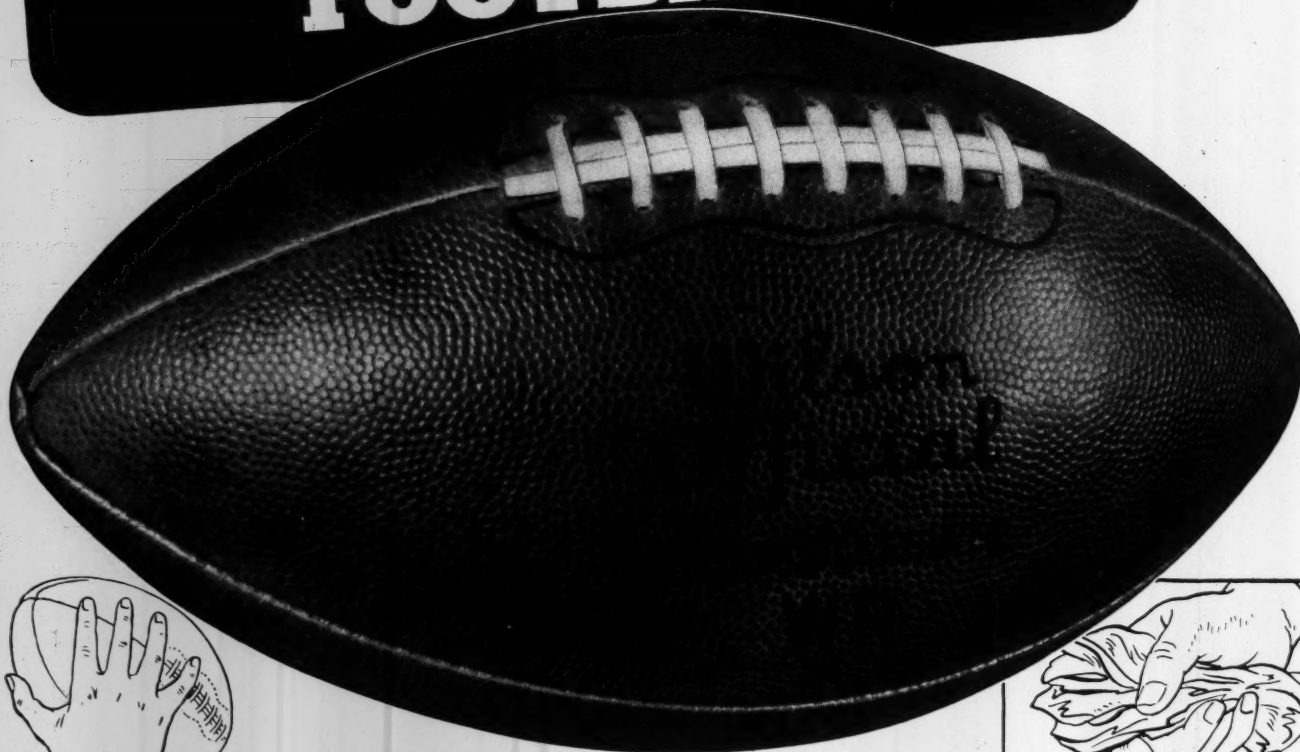
Now, these are serious charges. If true, something ought to be done about 'em, if only in the interests of national defense.

But, first, before doing anything drastic, who is Leo Fischer? What does he know about "harmful action," "heart disease" and "ailing tickers"? Can he cite any scientific evidence to prove his case?

We'll save you fifty cents, folks, he can't (cite any evidence). What is more, no one can. For there isn't any available. All the experimental evidence thus far advanced contradicts Mr. Fischer's hypothesis. Tout

(Concluded on page 48)

AMERICA'S FINEST FOOTBALL




**The Ball With the "feel"
of Fine, Quality Leather.
Easier to Handle—to Pass
—and to Kick!**

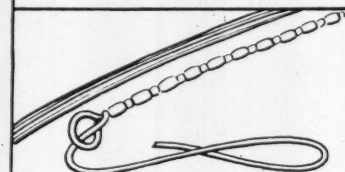
THE FIRST THING you notice is the amazingly different "feel" of this ball, in your hands. The usual hard, glazed slippery surface is gone. That is because the full top-grain cowhide used in this ball has the natural softening elements *left in*. This keeps the leather from getting hard and glazed. Instead, it has a chamois-like feel—gives the fingers a confident, secure, non-skid hold. Helps to eliminate costly fumbling in passing, kicking, centering and ball handling — *which any player and any coach wants*. New, durable *lock-stitch sewing* and a

special impregnated *triple lining* keep the Wilson Official WR from getting out of shape. Natural oils of the leather are retained to a large degree which makes the ball more water-repellent and a better wet weather ball. Flat *double lacing* and a one-piece, molded rubber, needle valve *bladder*, are other fine features. See your sporting goods dealer or write us, Wilson Sporting Goods Co., Chicago, New York and other leading cities.

NOTE Defense demands may cause leather shortage for athletic equipment. Anticipate by placing your orders **NOW**.



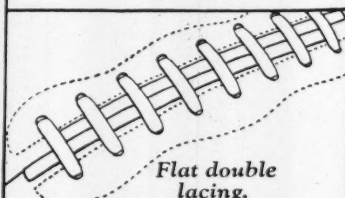
Full grain leather with the natural softening agent retained. Not hard and brittle.



Famous lock-stitch sewing for longer service and form retaining.



Special impregnated triple lining for shape control.



Flat double lacing.



Wilson
FOOTBALL EQUIPMENT

Baseball Quiz

By Jack Coombs

QUESTIONS

1. What common mistakes of young players in fielding ground balls do we as coaches have to rectify?
2. What corrections do we have to make in outfielders?
3. What fundamental advice would you give your infielders in regard to their throws?
4. Why do we advise a pitcher to vary his speed?
5. On the following play why do we insist that our pitcher line up with an outfielder and the catcher for the throw: Runner on second base, batsman singles to the outfield?
6. Why would you advise your catcher to stand directly behind the plate in a well-batted position, always stationary, when the pitcher is making his delivery?
7. A successful catcher receives all low balls with an upward movement of his hands and arms; all high pitched balls with a downward motion. Why is this advice?
8. Runners on first and second, the catcher by a quick throw to first attempts to catch the runner at that bag. Why is this defense play fundamentally unsound?
9. Why do we advise our infielders, including our catcher, to always stand in front of the base when the ball is thrown to them for an attempted put-out?
10. Run-up plays seem to be very hard for younger players to make. Each player is eager to get into the play and in the majority of cases a throw is the final result. What instructions would you give your squad?
11. Runners on first and second, none out, situation prompts a bunt. What defense would you teach?
12. On what plays must an infielder receive instructions before he can instantaneously make a throw?
13. A batsman hit a short fly into center field on which both the second baseman and the shortstop attempted to make a catch. The ball fell for a hit. The pitcher, upon seeing second base unprotected, ran for that

bag and arrived at the instant the runner slid into it. A collision resulted. A perfect throw was turned into an error and the runner went to third. Give the proper method of protecting this play.

14. The Yankees scored the tying run in the first World Series game against Cincinnati in 1939 on this play: Gordon scored from first on a fairly hit ball which was between third baseman Wever and shortstop. Why wouldn't we have scored this run on a bunt by you?
15. Runner on first, batsman hit a ground ball to second baseman, the second baseman was attempting to throw to shortstop to first. The first throw was made but the relay throw to first was not and the runner went to third. What was your opinion?
16. Runners on first and second, your team has one run, batsman hits a perfect throw to the plate, the catcher allows the ball to come to him without having a chance whatever to throw to first. What scoring opportunity is lost? What would you tell your squad about this situation?
17. Runners on second and third, none out, seventh inning, your team leading by one run, batsman hits a fly ball to the outfield. The pitcher backed up and the outfielder threw the ball to the plate after making the throw the ball bounded over the plate and into the catcher's hands. What was one run worth? What about it?
18. State four ways of making double play in this situation: Runner on first, none out, the batsman hits a fly ball in front of the second baseman, the batsman picks up his bat and walks toward the player's bench as the ball goes into the air.
19. Runners on first and second, one out, the batsman hit a ground ball to the third baseman. How should he make his play?
20. When would you order your pitcher purposely to walk one or two men in order to fill the bases?

Base Running

We know that base running is very essential to a successful team. Here are three very, very important questions. Be careful of your answers.

1. What is your advice to any batsman after he has hit the ball?
2. What is your advice to any player who occupies first base as a runner?
3. What would be your advice to the player occupying third base?

Batsmen

1. Are you going to make any radical changes in your players' batting styles?
2. When would you advise your batsman to lay down a sacrifice bunt?
3. When will you play the hit-and-run game?
4. When would you attempt the squeeze play?

Hit Situations

Would you allow your batsman to hit under these situations?

1. No one out, lead-off man at bat, two balls and no strikes.
2. One out, none on, two balls and no strikes.
3. Two out, none on, two balls and no strikes.
4. Runner on second, one out, two balls and no strikes.
5. Runner on first, one out, three balls and one strike.
6. Runners on first and second, none out, three balls and one strike.
7. Runners on second and third, one out, three runs behind, three balls and one strike.

Advise Both Batsman and Base Runner

1. Runner on first, one out, two runs behind, eighth man in batting order at bat, count three balls and no strikes.
2. Runner on first, one out, one run behind, seventh man in batting order at bat, count three balls and one strike.
3. Runner on first, none out, one run ahead, fourth man in batting order at bat, count two balls and no strikes.

4. Runners on first and second, one out, two runs behind, third man in batting order at bat, count three balls and two strikes.
5. Runners on first and third, one out, ball is hit on ground to an infielder.
6. Runner on third, none out, one run behind, sixth man in batting order at bat, count three balls and no strikes.

Make the Decisions for the Umpire

1. One out, runner on third, the catcher notices as the ball is being delivered that a squeeze play is being attempted. He rushes up in front of the plate, catches the ball and tags the runner for the second out.
2. Runners on first and second, one out, the batsman hits a high infield fly between the pitcher's box and first base. The first baseman unable to see the ball on account of the sun, backs away in order to give the catcher a chance to catch the ball. The catcher falls down and the ball rolls foul.
3. Is there any play or plays on which a player must appeal to an umpire before a decision can be rendered?
4. Runner on third, one out, as pitcher starts his wind-up his cap is knocked off; he stops his motion momentarily over head, but almost instantaneously continues his delivery, the batsman drives a hit into left field.
5. Runner on first, one out, count three balls and two strikes, the third strike is dropped but recovered very quickly and thrown to second base where the runner is declared out.
6. Runner on second, two out, the batsman smacks a line drive which hits the umpire standing behind the pitcher and bounds into right field for a two-base hit.
7. Runner on first makes an attempt to steal second, the batsman pokes his bat into the catcher's mask interfering with the throw to second.
 - A. Suppose: The runner had been thrown out in his attempt to steal second.
 - B. Suppose: The runner had been on third and the batsman had interfered with the catcher in his attempt to put out the runner stealing home.
8. The third-base bag was very loosely tied to its foundation and was over ten inches in foul

territory, the batsman hit a line drive which hit the outer edge of the bag and bounded into the players' bench.

9. Runners on second and third, one out, the batsman hit a ground ball to an infielder, runner on third made an attempt to score, he saw that the throw had him beaten so ran back toward third, he slid into the bag safely only to find that the runner who had been on second when the play started was already standing on the bag.
10. Runner on first, the batsman hit a long drive into right field, the runner was not absolutely sure the fielder could catch the ball so remained on the bag, the player hitting the ball rounded first under full speed and was half way to second when it became evident the outfielder could not make the catch. At this instant the runner who was standing on first

Scholastic Coach again takes pleasure in presenting the annual baseball quiz with which John W. "Jack" Coombs stumps his undergraduate experts at Duke University's school of physical education. Coombs, one of the greatest pitchers of all time with the Philadelphia Athletics and Brooklyn Robins (1906-1918), also coaches Duke's varsity nine and is author of the popular technical text, "Baseball, Individual Play and Team Strategy."

started to run, passed the player who hit the ball and by a sprint slid into third safely.

11. The third player in the batting order had been having great difficulty in hitting the opposing pitcher while the fourth batter had been hitting the ball hard. In the ninth inning, two out, the coach decided that the fourth batter should go to bat, as his team had three men on bases, instead of the No. 3 man, this fourth player hit a triple and won the game.

ANSWERS

1. (A) Glove and bare hand do not face the oncoming ball correctly.
- (B) Hands are between or behind feet instead of in front.
- (C) Feet are at an angle to the ball instead of being on a line with its flight.
- (D) Ball is brought to the body instead of to the throwing side in an effort to decrease the number of body motions

before the throw is actually made.

- (E) Weight of the body is not balanced upon the feet correctly.
 - (F) Glove is held high instead of close to the ground.
 - (G) Unconscious habit of raising the head and the eyes before the ball is captured firmly in the glove.
 - (H) A jump is taken on all ground balls to the left instead of moving the right foot back of the left, a waltz step, in order to come into a well balanced throwing position.
 - (I) Balls hit to the right cause extra steps, extra arm and body motions. The player should set the right foot firmly on the ground to stop momentum and with one motion of the arms to the throwing side of the body make the throw.
 - (J) The play to make is never thought of before the ball is hit.
2. (A) They catch the ball, take many steps before coming into a well balanced throwing position.
 - (B) They never catch the ball in a throwing position.
 - (C) They never bound the ball to a baseman.
 - (D) They never throw the ball so that a relay player receives it above the waist.
 - (E) They throw the ball from any position instead of making an overhand throw.
 - (F) They think of throwing the ball to the plate whenever there is a runner on second, instead of conceding a run and preventing an opponent from reaching second base from which he might score another run.
3. Throw the ball so that it can be caught above the waist line. It is almost impossible to catch a ball thrown below the waist, especially when running at full speed. Again, a player catching a low thrown ball has great difficulty in balancing himself for a perfect relay throw.
 4. Variations in speed give the batter little opportunity, as he tries to protect himself at his point of weakness, to get set.
 5. Immature arms in the outfield cause us to send either the second baseman or the shortstop out into the outfield as relay men. This means that our bases are properly protected with the

pitcher acting as the cut-off man.

6. Pitchers will always have a stationary target at which to aim the ball. We are advising our pitcher to pitch to some definite part of the catcher's body as a target.
7. We advise these movements so that the catcher may come into his throwing position without any false body motions which would be to the advantage of a runner.
8. The most dangerous throw a catcher can make. The runner on second would inevitably go to third.
9. So that the runner does not come between the ball and the player making the catch. This position also gives a baseman an opportunity to catch a wild throw without any interference on the part of a runner. By the proper movements of the feet on a perfect throw, the least possible body motions can be employed in tagging a runner.
10. Infielders only should handle the ball when runners are caught off bases. The rule is: Every time one player throws the ball to another, the one making the throw takes the position left vacant by the one receiving it. Illustration: Runner caught off second, the player—the shortstop or the second baseman—catching the ball starts the runner toward third base and throws the ball to the third baseman who in turn chases the runner back toward second where the put-out should be made. The player making the throw to the third baseman takes the protecting position at third base.
11. (A) The shortstop keeps the runner at second as close as possible to the bag without leaving his fielding position open. He does everything possible to retard the runner's break for third. If the batsman's bat drops as for a bunt, the shortstop protects the territory which would otherwise be covered by the pitcher.
- (B) The pitcher pitches to the outside of the plate to the left-handed batsman and to the inside to the right hander. He then rushes to the third-base line attempting to complete a forced play at third base.
- (C) The first baseman plays off the bag about half-way between the pitching box and first. If the bat drops indicating a bunt, he rushes toward the plate and fields the ball if it comes on his side of the diamond.
- (D) The catcher goes out for the bunted ball. If unable to field it, he shouts instructions to the player who does so.
- (E) The third baseman covers third if the pitcher or the first baseman can field the ball—a play of great judgment.
- (F) The second baseman covers first.
- (H) The left fielder backs up a possible throw to third.
- (I) The right fielder backs up a possible throw to first.
12. (A) Two bunt plays.
- (B) Runner on second, batsman makes a hit to the outfield, the catcher instructs the cut-off player—the pitcher.
- (C) Runner on third, batsman hits a fly ball to the outfield, the catcher instructs the first or third baseman acting as cut-off players.
- (D) Shortstop instructs the second baseman whenever a relay throw comes from the right side of the field.
- (E) Second baseman instructs the shortstop on relay throws from left field.
- (F) Catcher instructs the pitcher on slow or hard hit balls.
13. Third baseman covers second base backed up by both the pitcher and the first baseman; the catcher covers third and if the ball is thrown to that base, the first baseman protects the plate.
14. The ball would have been thrown to our relay player, the shortstop, who in turn would have run for the infield immediately. Gordon would not have scored on our defense, providing of course, that our shortstop did not make a wild throw to the catcher. The way we set up our defense for this particular hit ball there would have been an opportunity of catching Gordon at third base, if he had over-run the bag.
15. The catcher backs up first on all throws to that base unless there is a runner on a scoring position base—second or third. The wild throw might have given the player hitting the ball second but he would never have reached third base.
16. The pitcher, the cut-off player, should have received instructions from his catcher to take it. It is better to give the tying run and to keep the winning run from reaching second base.
17. The pitcher made the correct back-up. The ball should have been thrown to third to keep the winning run from the base where he might score on a passed ball, a wild pitch, an error or a fly ball to the outfield.
18. (A) Drop the ball, touch second base and throw to first.
- (B) Drop the ball, throw to the shortstop who in turn throws to first.
- (C) Drop the ball, touch the runner then throw to first.
- (D) Drop the ball, throw to the first baseman who touches the runner then the bag. If he touches the bag first he will not complete a double play.
19. Double play should be attempted—third to second to first. Exception: When the ball is fielded near the bag, then touch the bag and attempt the double play on a throw to first.
20. In the ninth inning with the winning run on third base. Fill the bases so that the infielders may have an opportunity for a forced play at the plate and possibly a double play by the catcher throwing to first.

Base Running

1. Touch every base. Never loaf. If the ball is hit to an infielder make every effort to reach first. Never change the stride. Over-run the bag. Turn to the right unless a wild throw is made, then turn to the left and scamper for second.

If the ball goes to the outfield as a fly or a hit make the correct pivot at the bag under full speed. Stop running only when the ball has been caught or the outfielder has fielded the ball and made his throw to the infield. Watch loafing outfielders who fumble or field the ball in a non-throwing position. Do everything possible to reach second and slide into the bag to keep from over-running it. Never slide into the bag at first unless the first baseman has to leave the bag on the plate side in trying to catch a bad throw.

2. Lead of two steps and a slide. Lead increased if the movements of the pitcher will allow it. Do not take a lead until the pitcher has stepped into the

(Continued on page 24)

WRESTLING SKILLS FOR THE BEGINNER

By Finn B. Eriksen

The fundamental on-guard positions should be introduced early in the neophyte's career

Finn B. Eriksen first entered Scholastic Coach's contributors' circle in June, 1939, with an excellent article on equipment and facilities in wrestling. He is unusually qualified to write on the subject. A former Midwest A.A.U. champion, he now coaches the sport in the West Waterloo, Iowa, schools. He has served two terms as president of his state's high school wrestling coaches association, is chairman of the Iowa chapter of A.A.U. wrestling and has just been appointed a member of the National A.A.U. Wrestling Committee.

THE sport of wrestling is one of the oldest and most natural activities in which boys of all age levels may engage. No matter how light or how heavy a boy is, or what type of physique he has, there is always a place for him on the wrestling mat.

Ten minutes of wrestling is probably more beneficial than an hour of cut-and-dried arm and leg exercises. Every muscle of the body is exercised and no one group of muscles is built up to the exclusion or detriment of another. To add to the attractiveness of the picture, this development is achieved in a relatively short time.

In working with beginner groups it is advisable to start with several of the more fundamental maneuvers and holds. Some of these techniques may be practiced alone while others should be practiced with a partner. The neophyte wrestler should work on these skills until he is able to execute them quickly and perfectly.

On-guard positions

One set of maneuvers the beginner wrestler should be acquainted with early in his career is the three "on-guard," or starting, positions.

The first and most often used of these is the stance taken by the wrestler on his feet (Illus. 1). In this position the wrestler keeps his feet approximately shoulder-width apart and his knees slightly flexed. He bends forward at the waist, extending his arms and hands in front of his body. He keeps his head up and watches every move of his opponent.

This stance is employed to keep the opponent away from your legs. Should the opponent grab your legs and lift you off the ground, serious complications ensue. Thus, the importance of assuming a very low on-guard position when wrestling on your feet, cannot be emphasized enough to the novice grappler.

In the second on-guard position, the athlete goes down on his knees (Illus. 2), making it almost impossible for the opponent to get hold of his legs. Even some of the veteran wrestlers use this stance.

A third on-guard position, assumed while kneeling on one leg, is sometimes used by the more experienced wrestlers (Illus. 3). This position, however, is not as safe as the preceding stance, as the boy is slightly off balance to the side he is kneeling. A smart opponent will quickly notice this and take advantage by pushing him over on his side, where he is exposed to a pinning hold.

As the wrestlers meet on the mat the first hold they both generally



SAY UNCLE. It's just as natural for boys to wrestle as it is for birds to fly.

apply is the referee's hold. This hold is used mostly to feel out the opponent and if possible to maneuver him into a position of disadvantage so that an effective hold may more easily be applied.

The referee's hold is secured by placing the right hand in back of the opponent's neck. The left hand grasps the opponent's right arm just above the elbow, with the thumb on the outside (Illus. 4). It is important to keep the right elbow close to the body, otherwise a pinning hold may easily be applied by the opponent. The right forearm should be almost directly in front of the opponent's chest in good position to block any attempt at a leg hold.

The referee's hold may also be ob-

tained while the wrestlers are face to face on their knees (Illus. 5).

When a wrestler drops to his knees upon securing the referee's hold, it is wise for the other wrestler to fall to his knees also, otherwise his opponent may get hold of his legs.

One common method of getting an opponent's legs while in the referee's hold is by suddenly lifting his right arm upward and at the same time dropping to one or both knees and grabbing his legs (Illus. 6). The aggressor should keep his head on the outside of his opponent's legs and bring him to the mat. A pinning hold should then be applied.

The hold which is most often used in pinning an opponent's shoulder to the mat is the half nelson (Illus. 7). To secure the near half nelson, it is well to have the opponent down on the mat. The hold may be applied on either side of him.

Half nelson

When securing the hold from the left side, slide the left hand under the left arm and up over the neck, hanging on to his body with the right arm. As the left hand cements its grip, pressure should be applied and the opponent turned over on his back for the kill. His shoulders must be held to the mat for two seconds before the referee will award a fall.

It is also important to stay at right angles with the opponent after he has been turned over, otherwise he may roll you over and come up on top.

In a regular amateur wrestling bout, time-outs are often called to give the contestants a minute's rest. During these breathing spells the boys should get off their feet.

It used to be quite common to see the wrestlers sprawl in one corner of the mat while their coaches imparted helpful hints. Today most coaches have a chair ready for their boys.

If no chair is available during rest periods, the student trainer may kneel on one knee and allow the wrestler to sit on his other leg (Illus. 8). This method is being used in several parts of the country, and owes its origin to the prize ring. Boxers used to rest between rounds in this fashion before stools were introduced.

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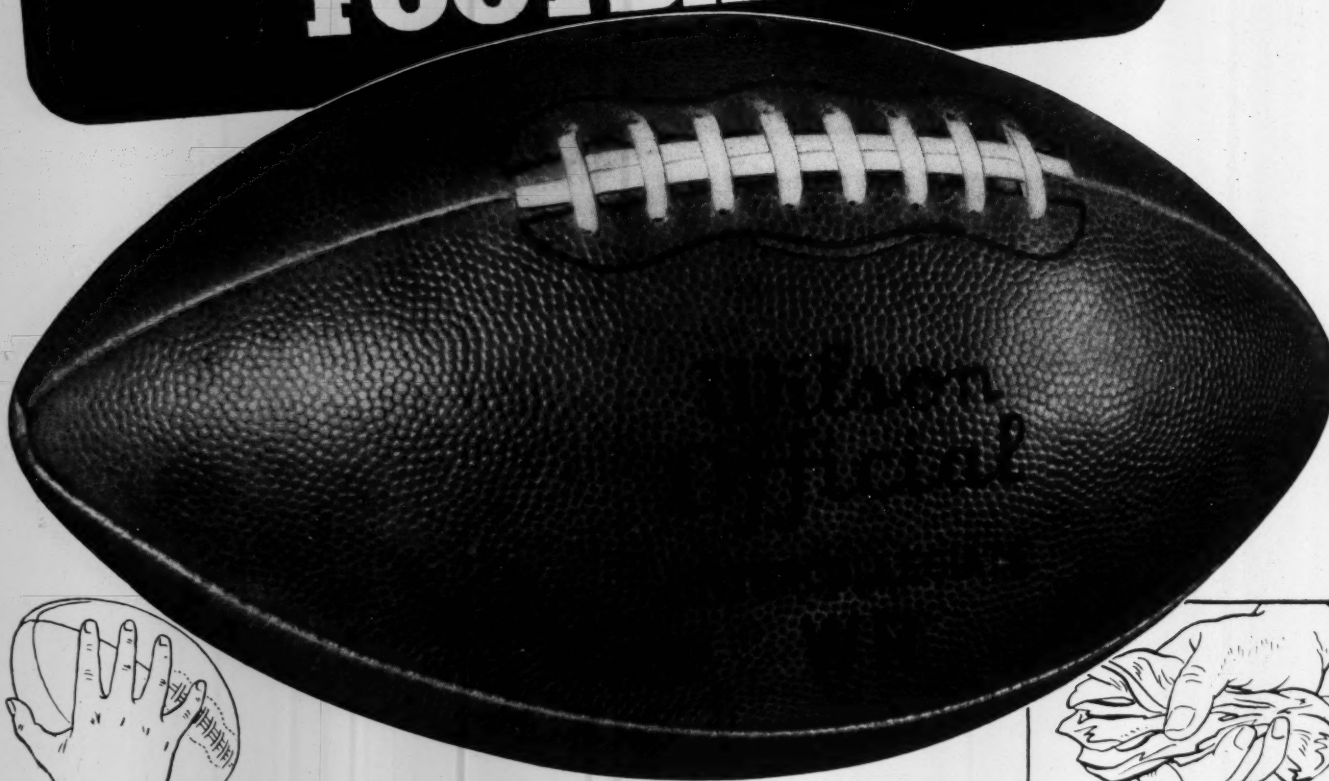
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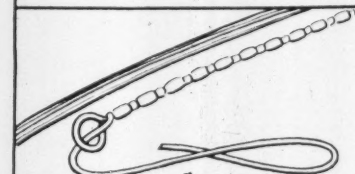
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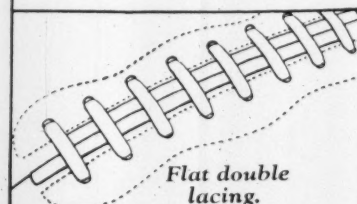
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1 The most frequently employed on-guard position, with the wrestler on his feet.

2 Tyros often use this on-guard position (on the knees) to protect their legs.

3 Only experienced hands can get away with this type of on-guard stance (on one knee).

4 The referee's hold, cheek to cheek, generally is used to feel out the opponent.

5 The referee's hold may also be obtained with the boys face to face on their knees.



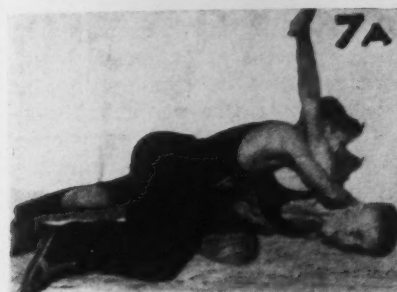
One of the more common ways of getting an advantage on the foe, while in the referee's hold, is the leg-drop. **6**



Start of the near half nelson with the left hand snaking under the opponent's arm and up over his neck. **7**

Wrestlers who keep their arms away from their bodies are exposing themselves to the dangerous half nelson. **7A**

If no stools are available during recesses, the student manager may kneel and offer his thigh as a seat. **8**



FLOODLIGHTING THE SOFTBALL FIELD

By Harry Hays

THE lighting of a softball field is not an extremely difficult problem, but there are several definite rules that must be observed if the final lighting result is to be acceptable and profitable.

For instance, it is advisable to mount the floodlights on eight towers that have very definite locations with respect to the field. This is essential for the proper distribution of light without annoying glare for spectators and players.

The height of these towers have an important bearing on proper distribution and glare. On small fields, no tower should be less than 40 feet in height. On larger fields with an outfield depth of 200 feet, the tower height should not be less than 60 feet for the four outfield towers. However, with either a 45- or 60-foot infield diamond, the infield tower height remains at a minimum of 40 feet.

On both large and small fields two of the infield towers (1 and 2 in the accompanying illustration) should be located about 15 feet from home plate along the baselines and 25 feet from the diamond. The other two infield towers (3 and 4) should be located 15 feet from the diamond and about 90 feet from the plate.

The four outfield towers are symmetrically spaced on lines 14 degrees and 34 degrees from both foul lines.

For small playgrounds a six-tower layout is sometimes permissible. In this event the four infield towers retain their original positions, but two towers are omitted in the outfield and the two remaining towers are re-located approximately 26 degrees from each foul line. Here again all towers should be 40 feet high.

With the towers properly located and of the correct height, the next step is to select the lighting equipment.

The floodlights should preferably be closed type with heat-resisting glass lens and aluminum reflectors finished with the Alzak process. This process keeps the reflector clean, insuring maximum efficiency from the floodlight. It also protects the lamp bulb from rain which may crack a hot lamp. At the same time, cleaning maintenance is reduced to washing the glass lens.

The reflector should be designed for a 1500-watt, Type PS-52 gen-

eral service lamp. Operated at 10 percent overvoltage this lamp will reduce the life of the lamp by two-thirds but will magnify the light output about 35 percent at an increase in wattage consumption of only 16 percent. Generally, 105-volt lamps are operated on 115-volt circuits.

The number of 1500-watt floodlights per tower will vary with the class of installation and the size of the outfield. For a Class A installation with an outfield that has a depth of 200 feet, 36 floodlights are recommended. Three floodlights should be installed on each of the two towers near home plate and five on each of the remaining six towers.

For a small playground using only six towers and having an outfield depth of 150 feet, two floodlights should be installed on each of the four infield towers and three on each outfield tower.

The power distribution for a soft-

On small playing areas the towers should be at least forty feet high

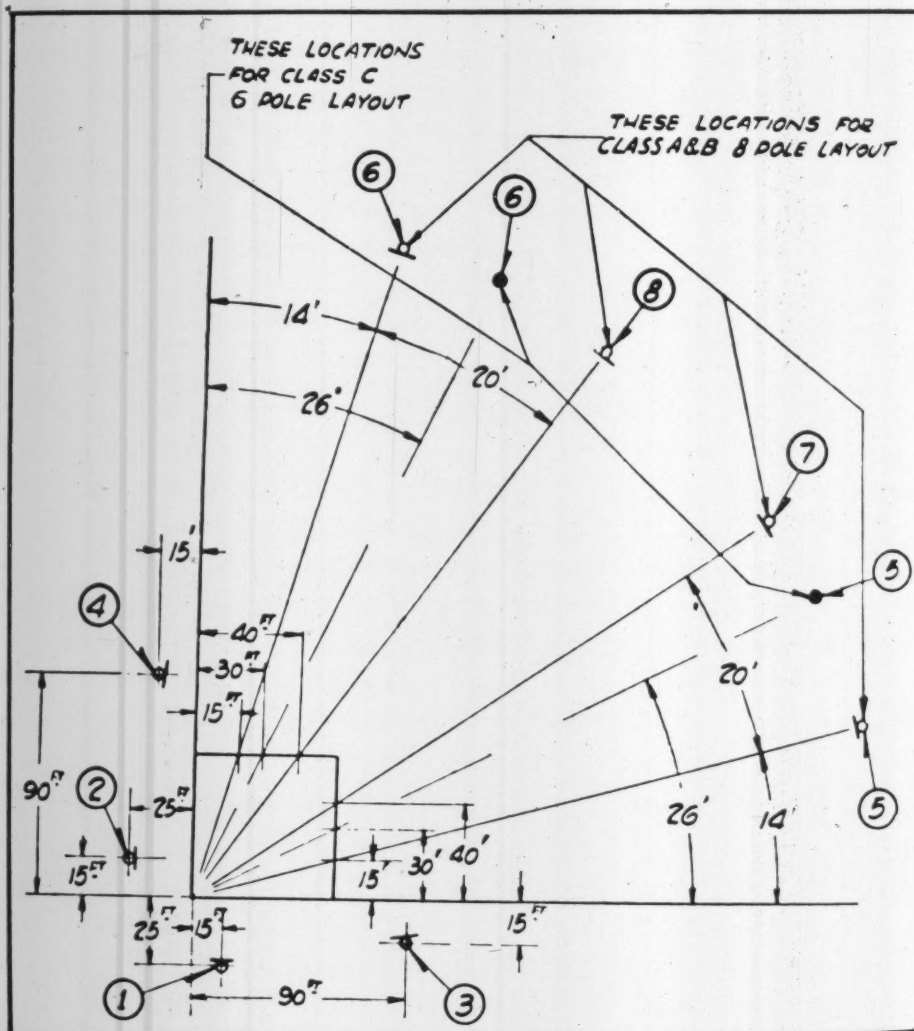
ball field may be either underground or overhead wired. The underground system is more expensive but gives a much neater appearing installation.

A transformer of sufficient capacity for all the floodlights can be mounted on a service pole near the distribution center for overhead wiring.

When an underground system is used the transformer and controls can be located in a properly protected enclosure.

The art of outdoor sports lighting has moved forward rapidly wherever lighting engineers have obtained their education through actual field experience.

With the installation of lighting equipment for sports very definitely increasing from year to year, we can expect a decided general improvement in the application of the equipment as well as continued improvement in equipment design.



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CARE OF THE LEGS AND FEET IN TRACK

By George G. Deaver

Knowledge of anatomy and physiology is essential in conditioning the muscles

Dr. George G. Deaver is generally recognized as one of the foremost authorities in the country on athletic injuries. As assistant professor of education and assistant health officer at New York University, he has devoted a life-time to the anatomy and physiology of athletics and to practical studies of the University's athletes. He has worked successfully with Glenn Cunningham on training and conditioning and at present is working with Les MacMitchell, N. Y. U.'s miler of the year. Dr. Deaver is also a prolific author and a lecturer in great demand. Much of the material in his article was presented originally in a talk he gave at a schoolboy track clinic at N. Y. U.

WHEN we speak of training or conditioning we refer to those practices which best prepare the athlete for efficient performance. Experience has shown us that a carefully-planned practice program will condition the muscle structure to withstand all abuse and accomplish results at minimum physiological expense.

A diversity of ideas still prevails relative to conditioning, but through research and observation we are gradually separating the chaff from the wheat. Conditioning exercises which linger purely out of tradition are now being subjected to scientific scrutiny, and those without sound anatomical bases are being discarded. Unfortunately many of these still endure.

In track, for example, the average runner will take elaborate pains to stretch and relax the "hamstring" muscles (in back of the thigh) before a race. Hurdlers, especially, are predisposed to all sorts of queer manipulations to "loosen up" these muscles. We all have seen hurdlers prop a leg over a hurdle and go through various bending routines over the member.

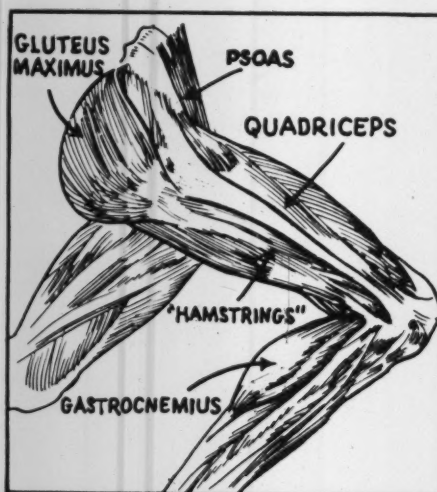
In reality this is dangerous. The athlete actually may pull a muscle by overstraining it. A simple knowledge of anatomy will reveal a sounder way of stretching this muscle. Everytime you bend your body forward at the hips, the "hamstrings" will stretch. All the runner has to do, then, to loosen up these muscles is merely to bend forward and touch the toes. It is as simple as all that.

A few years ago the writer had the opportunity to work with Glenn Cunningham, perhaps the greatest miler of our day. Glenn confessed, at the time, that insofar as the "hamstring" muscles were con-

cerned he had been warming up in a manner probably anatomically unsound. After being shown the simple bending exercise and explained the logic underlying it, he promptly adopted it for his own warm-up routine.

Hence, for a fuller understanding of the conditioning and care of the legs in running, it is essential to understand the anatomy, or the structure, of the lower extremities and the concomitant physiology—how it functions. When these are understood, the reasons for the application of certain regulations will be easily discernible.

Before discussing any further rules of training, then, let us review briefly the anatomy and physiology of running.



Insofar as anatomy is concerned, there are five factors to consider: bones, ligaments, muscles, tendons and blood vessels.

The bones are the structures which give shape to the body and attachment for the muscles. You cannot condition them (bones), for their strength depends upon the power within the muscles.

The strength of the bones depends upon the strength of the muscles. As the muscles increase in power the bones become heavier and stronger. If this were not so athletes would be pulling the muscles and tendons from the bones or fracturing the bones.

The ligaments are a strong tissue with some elasticity and their function is to connect the bones and thus make joints, or movable parts. You cannot condition ligaments. As the

muscles and bones become strong so do the ligaments.

In seeking ways of strengthening the ligaments, do not try any of the fancy exercises prescribed in some books. The ligaments are placed in the various joints to give you the required amount of movement. If the runner goes beyond this limit he stretches the ligaments and produces a sprain or dislocation.

The muscles are the tissue which moves the bones at the joints. Good, strong muscles are essential in running. There are some 434 muscles in the body, constituting about 45 percent of the total body weight.

Each muscle is an organ having the power to contract and relax. They vary in size, shape and arrangement.

The tendons are usually found at the origin or insertion of the muscles, and it is by means of the tendon that the muscle is connected to the bone. Not all muscles have tendons, but it is through tendons that muscles can work in a small area, space can be reduced and the body of the muscle can be located nearer the axis of the body.

As a rule the greater the fleshy nature of the muscle, the greater the strength. Speed of action is found in muscles with long tendons, such as the fleshy calf muscles which insert on the foot.

The blood vessels carry oxygen and food to the tissues and waste products from the tissues. The same blood vessels which care for the needs of the muscle perform the same function for the bones and ligaments.

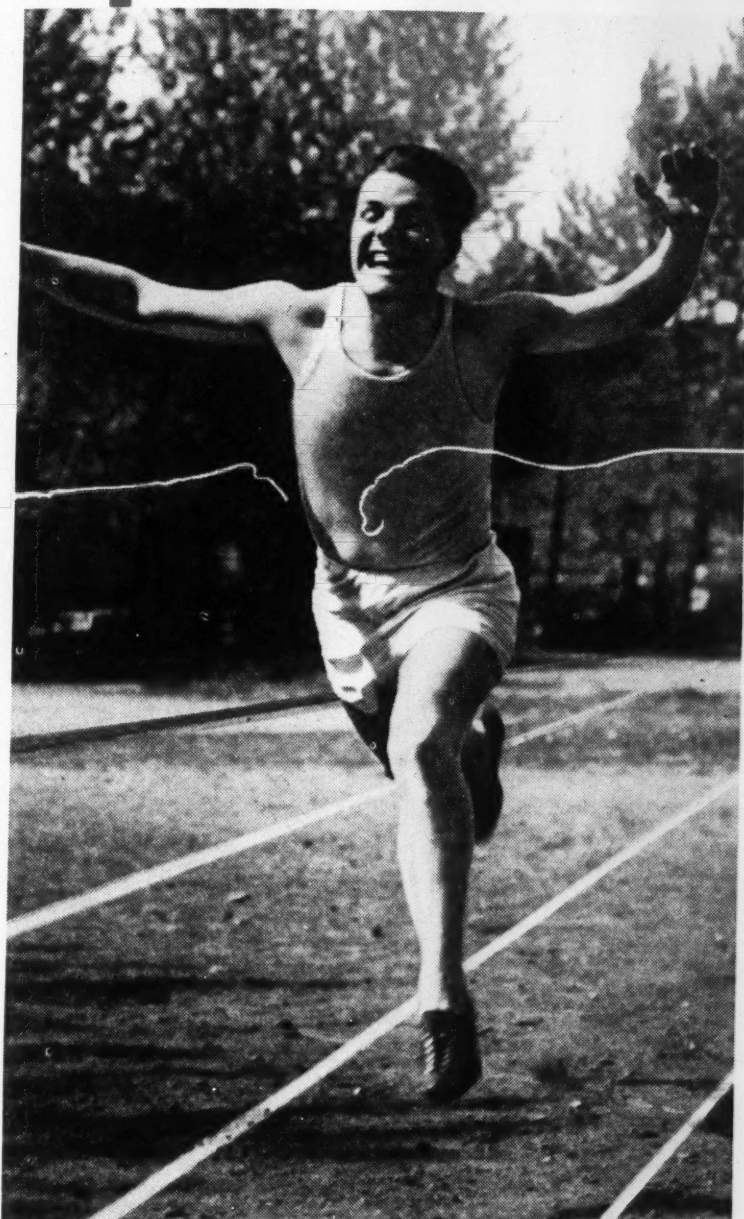
The motor nerves carry the stimuli to muscles, causing them to contract and relax and thus move the legs.

In summarizing, we find that there are five principal structures involved in running and that the muscles, the only tissue under our control, is the one which controls the proper functioning of the other four.

It is the muscles which produce the drive in running, and by conditioning the muscles we attain the strength necessary to run. There is only one way to produce strength in muscles *and that is by work*. Cross-country running over hills and dales is the best exercise there is to strengthen muscle. The little jaunts

(Continued on page 45)

TRACKMEN NEED PLENTY OF STAYING POWER!



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* * * *

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2. Then, two tablespoons a day. Take after game or practice period, preferably after shower.
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ture), or grapefruit juice, or grapefruit juice and water may be mixed 50-50; 4 oz. of water and 4 oz. of grapefruit juice. Pineapple juice may be substituted for grapefruit juice.

5. HOW TO MIX:

- (a) Pour onto the liquid 2 level tablespoons of Knox Gelatine.
- (b) Let liquid absorb the gelatine.
- (c) Stir briskly and drink before it thickens.

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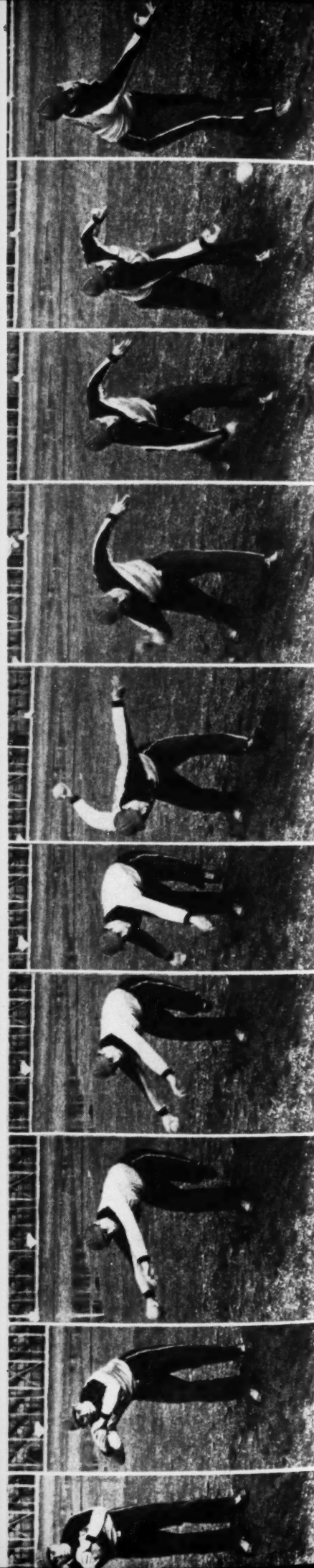
Fast Ball

Softball Pitching

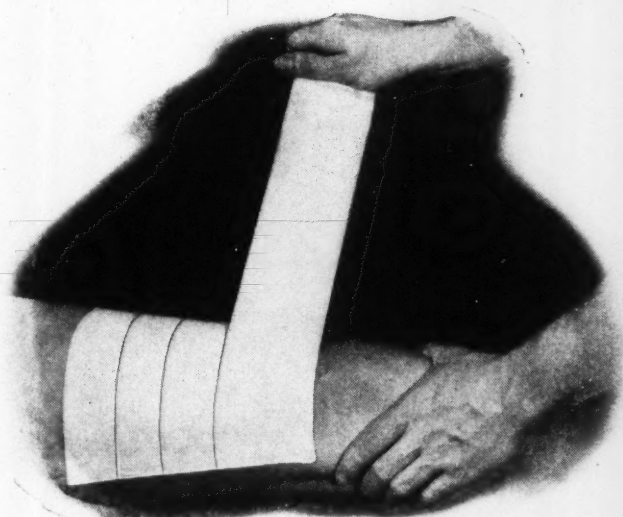
Incurve

GRIPPING the ball firmly between the thumb and the first and second fingers, with the third and little fingers curled back, the pitcher carries the ball up in both hands to a position slightly above the waist and a foot or so in front of the body. Turning slightly to the right he brings the ball far across his back, at the same time swinging the left foot back and then forward. The arm comes down very fast, and the ball is released with a tremendous whip almost on line with the opposite knee.

THE ball is gripped in much the same manner as for the fast ball. It's the release that imparts the break. Keeping a low center of gravity, the pitcher brings the ball far back with a loose, graceful arm motion. The left foot steps forward and the arm whips down, closer to the body than in the fast ball. The thumb and first finger press tightly on the ball, and the arm and wrist snap to the right. This inside-out effect is reversed in the outcurve, which is more an outside-in type of delivery.



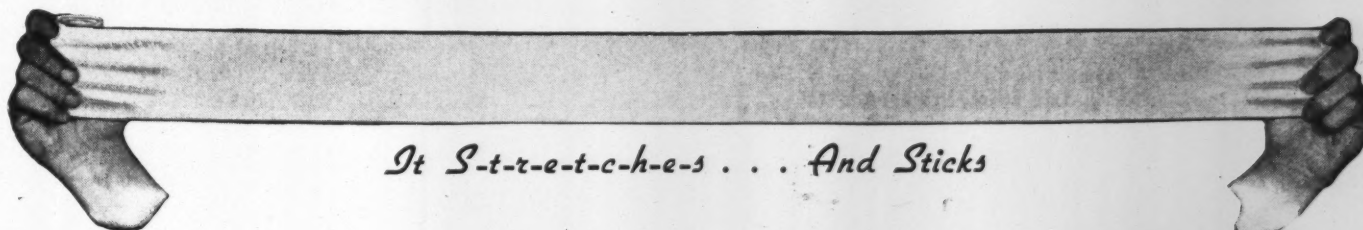
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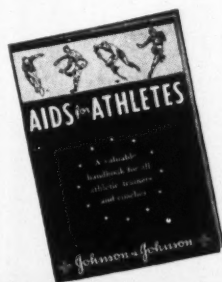
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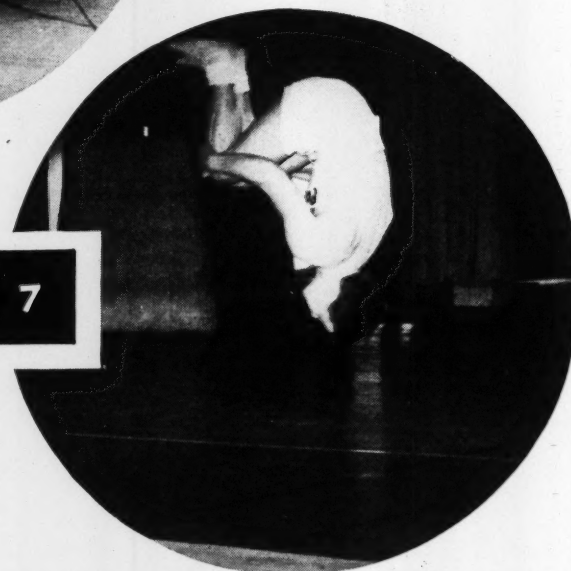
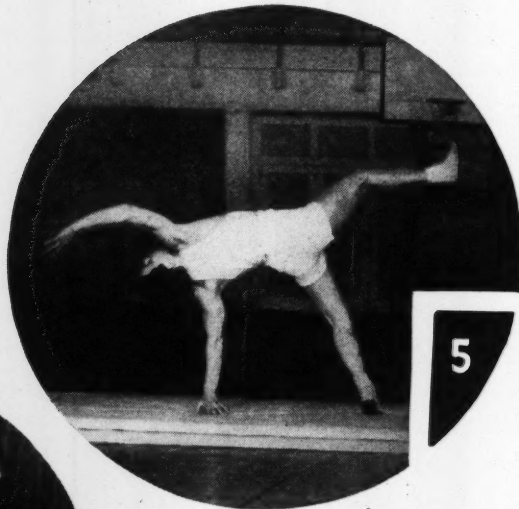
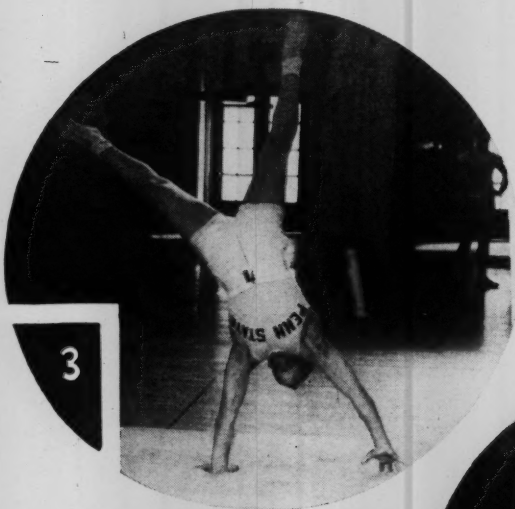
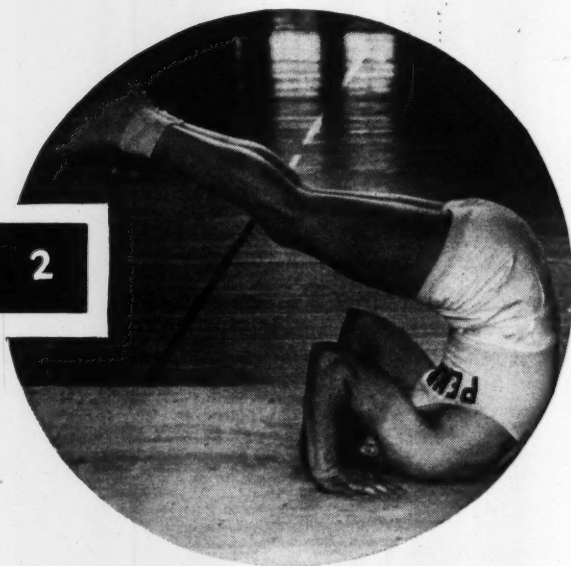
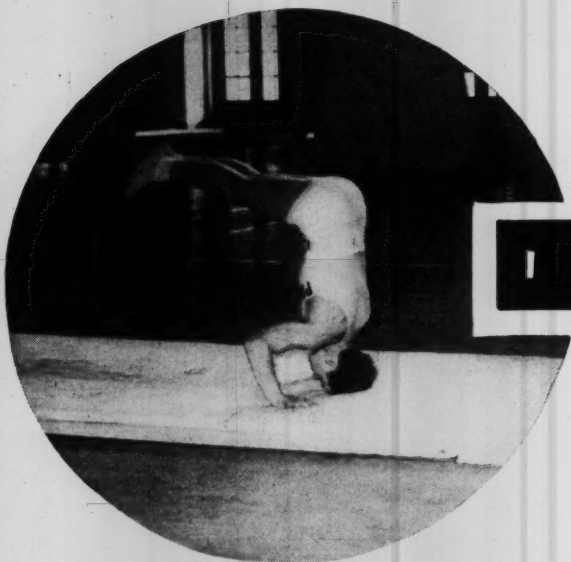


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ELEMENTARY SCHOOLBOY TUMBLING

By Eugene Wettstone

A technical analysis of the foundation skills: rolls, balances, springs, walk-overs, somersaults

This is the second of a series of three articles on high school tumbling by Eugene Wettstone, varsity gymnastics coach at the Pennsylvania State College, whose team last year placed second in the National A.A.U. championships. Before coming to Penn State the author was the Big Ten all-around gymnastic champion (in 1935 and '37) and a national intercollegiate champion (in 1937). In last month's installment Mr. Wettstone presented his philosophy of coaching and a number of valuable suggestions on conditioning and safety.

LAST month we vouchsafed that in coaching a group in tumbling the elementary things must come first. You must stay with the fundamentals until they've been mastered. The more a skill is repeated, the greater confidence the boy acquires; and thus a better foundation is laid for the difficult exercises to follow.

When a high school boy is correctly motivated, it is not difficult to get him to practice the basic skills over and over again, especially when the skills have been worked into various routines.

The elementary skills are grouped into five classes for the convenience of the teacher. They are listed in their order of difficulty, as follows: (1) Rolls, which include forward rolls, backward rolls and backward extensions; (2) Balances, which include headstands, handstands and forearm balances; (3) Springs, embracing snap-ups, necksprings, headsprings, forward handsprings and backward handsprings; (4) Walk-Over, which include cartwheels, round-offs, walkovers and tinsicas; (5) Somersaults, including forward, backward and sideward somersaults.

Rolls

Rolls are perhaps the most fundamental and the most familiar of all tumbling skills. They can be performed by almost any beginner. The coach should work on rolls until the tumbler can do them from any position, run or dive. Remember, the value of a roll lies more in its worth as a recovery movement and a safety measure than as part of a routine.

Rolls are fundamental to somersaults and when executed in a series they will develop the semi-circular canal functions and reduce the tendency toward dizziness. In addition, they make good warm-up skills.

The back extension roll is nothing more than a roll with a full vertical extension of the body to a momentary handstand position, snapping the feet under by flexing the thighs with a slight bend at the knees. In the extension roll the hands should push and leave the mats slightly before the feet hit.

Balances

Although the headstand and handstand cannot be classified as true tumbling skills, they seem to be pertinent in the development of good high school tumblers. Practice of these skills is conducive to the development of strength, coordination and a kinesthetic sense. Balances can be practiced on the gym floor. The sooner a tumbler can get the headstand, the sooner he will get the headspring. The awareness of the relationship between the legs and the other parts of the body when holding an inverted position, is a vital asset to tumblers.

Springs

Since springs are constantly being used in routines by our best tumblers they, too, must be mastered. To facilitate teaching, you may use handbelts or roll up several mats to support the back of the performer. It is wise to double mats whenever possible to reduce shin splints and ankle injuries. The added protection will also give the performer more confidence.

To execute a headspring, snap into an arch from a one-leg take-off with hands and head supporting the body. The common error is to tuck the head and roll or to fail to push with the arms. Try to land in an erect position. (See Illus. 1.)

In the handspring, as in the headspring, the take-off is with one foot. Landing is on two feet in an erect position. The handspring can best be learned from a short run and hop. If the performer hops on his right foot, the left is raised forward; the arms are flung up in position for a downward thrust. The weight is thrown on the left foot. The tumbler bends at the waist and swings his hands down fast to the mat. As the hands hit the mat the right leg swings up and over followed by the left foot.

It really amounts to a good back

leg swing through the handstand position. Arm push from the mat starts just as the legs pass the handstand or inverted position. At the same time the back is arched. The head is kept back until balance is restored over the feet.

Instructors can assist advantageously by spotting the performers and helping them over when necessary. Keeping the head up and arching the back are perhaps the two most essential points to remember. When starting out, it might be wise to roll a mat tightly and place it on top of the tumbling mats for back support. Now, if the individual puts his hands down in front of the rolled mat he can partly roll over in the arched position and get the general feel of the movement.

The back handspring is slightly more difficult than the front handspring because of the unnatural execution and the two-leg take-off. Tumblers often make the error of diving backards or jumping as for a somersault instead of whipping back to a low arched position, keeping the feet on the mat until the hands are about to touch the mat.

This skill can be learned quickly with the aid of a safety or a handbelt and later a spotter. Speed and snap should be developed in preparation for a series of back handsprings. This probably is the most frequently used skill in tumbling. It serves as a medium for gaining momentum and height in the more advanced somersaults and twists.

The upstart

The neck spring or upstart (Illus. 2) is quite simple to learn. It is necessary to tuck the head so that the spring can be released from the back of the neck. When first attempting this skill, do not run as in the handspring; instead, lie on the back, flex the thighs and bring the feet back over the head with the buttocks high.

In the illustration note that the hands are placed on the mat above the shoulders with the fingers pointed toward them. The neck spring commences with a sudden extension of the body up and away with the back well arched. Simultaneously the hands push, lifting the shoulders from the mat so that the feet may be drawn in under the buttocks for the erect landing position. Neck

springs may be done in series, by rolling forward onto the shoulders and nipping up.

Walk-Over

This group consists of modified handsprings in which the performer walks into and out of skills. Of these the cartwheels are the most popular and the most easily learned.

In executing the cartwheel the body makes a one-fourth turn with the arms and legs acting as spokes of a wheel without a rim. At the beginning it is quickly executed from a short run and skip. As the skip is completed the body should be turned sideways with the arms in a horizontal position. If the turn is to the right the weight is shifted onto the left foot; the left hand is placed on the mat as the right foot swings up. The right hand is then placed on the mat, and we now find the body in handbalancing position with the legs spread (Illus. 3).

The next shift is on the right hand as the right foot hits the mat. The tumbler drops the left foot, keeping it widely separated from the right, and comes to a stand with the body erect.

Cartwheels are distinct four-count movements and are usually performed in a series, although they can easily be preceded or followed by other skills. They may be executed right or left, depending upon the individual.

The round-off

The round-off starts like the cartwheel but the body makes a half turn and lands on both feet, facing the direction of the initial run. This movement is a gear, which can alter the position of the body from forward to backward without the loss of energy.

It gives the tumbler momentum and swing for somersaults which are normally difficult from a dead-standing position. The half twist in the round-off is completed in the inverted handstand position. The snap-down from this position to a standing position should be sharp and quick to set up a bounce and whip. Just before landing the hands should leave the mat so that the recovery finds the body in a straight standing position.

Two-hand push

The walk-over resembles the front handspring in that the two hands are placed on the mat side by side and a one-leg take-off swings the body up and around. Landing is on one foot at a time. Walkovers are

used because snap and speed are needed for such tricks as the baroni and the front somersault. Push is given with the two hands and not one as in the case of the tinsica (Illus. 4).

Being slightly different from the walkover the tinsica is executed with cartwheel action (Illus. 5). In brief, it is a cartwheel done forward and not sideward. The tinsica is smooth and rhythmical and executed without snap or bounce

Somersaults

If any division can be made between elementary and advanced tumbling it is in this fifth class—

TUMBLING ROUTINES

Rolls

1. Series of forward rolls.
2. Series of backward rolls.
3. Forward roll, half turn, backward roll, half turn (repeat).
4. Series of back extension rolls.
5. Forward roll, full turn, forward roll, half turn, backward roll, back extension roll.

Springs

1. Series of headsprings (two foot take-off).
2. Series of handsprings (two foot take-off).
3. Handspring, headspring, neckspring, hop step and a layout handspring.
4. Series of back handsprings.
5. Handspring, full turn, headspring, half turn, back handspring.

Walk-Over

1. Series of cartwheels.
2. Series of tinsicas or walk-overs.
3. Tinsica, cartwheel, tinsica, cartwheel.
4. Walk-over, tinsica, cartwheel, round-off.
5. Cartwheel, full turn, cartwheel, full turn, cartwheel.

Somersaults

1. Handspring, forward somersault.
2. Roundoff, back somersault.
3. Series of forward somersaults.
4. Series of backward somersaults.

Combinations

1. Tinsica, cartwheel, roundoff, extension roll, back handspring.
2. Walk-over, handspring, roundoff, back somersault.
3. Series of headsprings or handsprings and a forward somersault.
4. Forward somersault, forward somersault, handspring, headspring, forward somersault.
5. Walk-over, handspring, forward somersault, handspring.
6. Handspring, forward somersault, handspring, forward somersault.
7. Roundoff, series of back handsprings, back somersault.
8. Roundoff, back handspring, extension roll, back handspring, back somersault.
9. Roundoff, back handspring, cartwheel, roundoff, back handspring, back somersault.
10. Roundoff, back handspring, back somersault, back handspring, back somersault.

the somersaults. They are the most difficult of the elementary skills. The somersault involves a complete turn over without the support of the hands.

In this grouping there are three essential varieties. The first is the forward somersault or flip (Illus. 6). It is nothing more than a high dive without the hands touching the mats; or, better yet, a forward roll executed fast and high enough so that mat support is not necessary.

When first learning the front "sommy" it is a wise precaution to double the mats to prevent shin splints and ankle injuries. A mat rolled up and placed on the regular mat will facilitate learning. All the individual need do is to take a two-foot take-off dive and neck-roll over the mat.

It should be remembered that after the two-foot take-off, the athlete should spring from the mat at a slight angle, throwing the hands down, tucking up the legs and grasping the shin. The common fault is putting the hands under the buttocks to ease the landing. Failure to obtain maximum height before turning and failure to tuck are other errors committed frequently by the beginner.

Back somersault

The back somersault can be learned with the assistance of a safety belt. It should be practiced first from a standing position. The boy springs up and slightly back off the mat, reaching the arms back and up to gain height. At the same time, the head is thrown back. As the body leaves the mat the knees are tucked up to the chest and encircled by the arms for a spin around. After the performer gets the general idea and can accomplish the movement without assistance, learning can be facilitated by doing a round-off before the somersault (Illus. 7).

The side somersault should be learned from a fast cartwheel with the help of a safety belt. The spin is sideward and the knees are tucked in to make the spin easier.

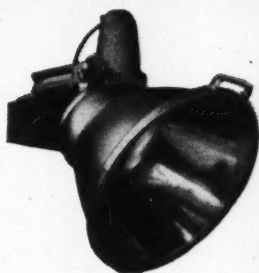
The elementary skills can be taught with little equipment other than mats. A number of the regulation five by ten foot mats, tied together, makes a suitable pad for routine tumbling.

The knowledge and proper use of safety devices is very essential. Unless a boy feels reasonably safe, and can take a few spills without getting mat-shy, he will never accomplish much as a tumbler.

In his concluding installment next month the author will touch on the more advanced tumbling skills.

Come Along

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General Electric Type L-68 floodlight, one of the most efficient—and yet inexpensive units available for tennis court lighting. Can be used open, but the enclosed type is recommended because the slide-type door glass excludes dirt, insects, and moisture—to reduce maintenance and improve over-all efficiency. An accurately formed reflector, die-cast rust-proof socket housing, and rubber-packed entrance bushing assure a long life of reliable operation.

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HOURS**

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451-34

Baseball Quiz

(Continued from page 11)

box. Use the cross-over step for the start or the return. Make every effort to reach third with one out but do not make the same effort with two or none out.

Remain on the bag on all long hits to the outfield because there is a chance to advance a base after the catch. If an outfielder is coming toward the infield attempting to catch a fly ball take a safe lead so that a return can be made if the catch is completed or an advance if the ball is dropped. There are three types of steals from first base: The plain, the delayed and the double steal which is often attempted when first and third are occupied by runners.

3. Take two steps and a slide for the correct lead from third base but always upon foul territory. Go toward the plate on every pitch. Do not run up the base line and be on the way back to third when the ball is being

delivered. Remain on the bag whenever a ball is hit over the heads of the infielders: A hit scores a run, a fly ball provides an opportunity to score.

Make an attempt to score a run on any ground ball to the infield. If, however, the ball reaches the catcher first, run back and forth upon the base line until the player who hit the ball has at least reached second. The termination of a run-up play may find another player upon the bag at third—the offense player must not forget that the runner who was originally entitled to the bag is still entitled to it. A runner entitled to third cannot be run off that bag unless there is a force play.

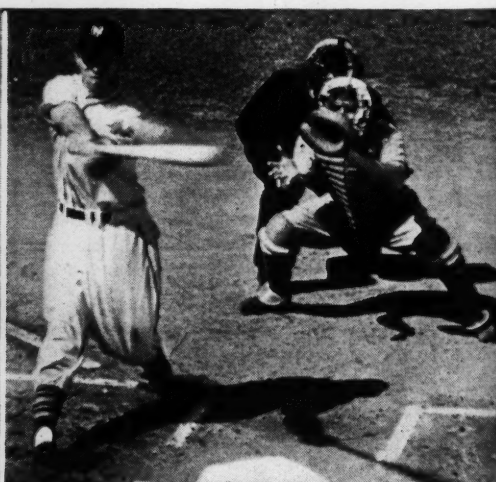
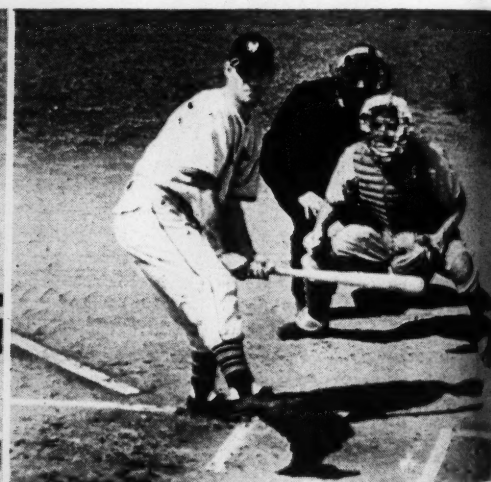
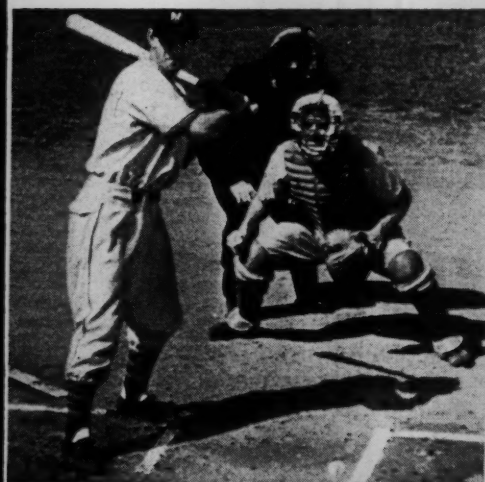
Batsman

1. No. Each player has his own batting style and should be encouraged to use it unless he has developed certain detrimental habits.

2. When one run is an all important run.
3. Play it when first is occupied by a runner and the batsman has the pitcher in the hole: two balls and no strikes or three balls and one strike. With the count of three balls and two strikes, you have to have a good man up to attempt a hit and run. Percentage does not favor the hit-and-run play when more than one base is occupied by runners. It is better to have the batsman hit straight away.
4. When runs are hard to score and one run is an important one, then only in the later part of a game.

Hit Situations

1. No.
2. Good hitter, yes; weak hitter, no.
3. Yes.
4. Yes, always hit with runners on scoring position bases when you have the pitcher in the hole.
5. Hit and run if less than three runs behind.
6. Bunt if the advancing of the runners would be to the advan-



tage of the team. Hit under other conditions.

7. Yes.

Advice to Both Batter and Base Runner

1. Batter hits. Runner plays safe fearing a strike-out and a double play through the catcher's throw to second base. If the runner is thrown out at second the ninth player in the batting order becomes the lead-off man in the next inning. This ninth batsman, no doubt a weak hitter, should not lead off an inning if it can be prevented.
2. Hit and run. The runner should look for this play.
3. Early part of the game hit and run; last part bunt.
4. Hit and run or hit straight-away.
5. Runner on third should make an attempt to score in order to stop if possible, a double play. If the ball has him beaten, he runs back and forth until the runner who was on first reaches third and the player who hit the ball reaches second.
6. Take one strike and then with three balls and one strike, hit. The runner occupying third

makes sure that any hit ball goes by the infielders before he makes an attempt to score.

Make Decisions for Umpire

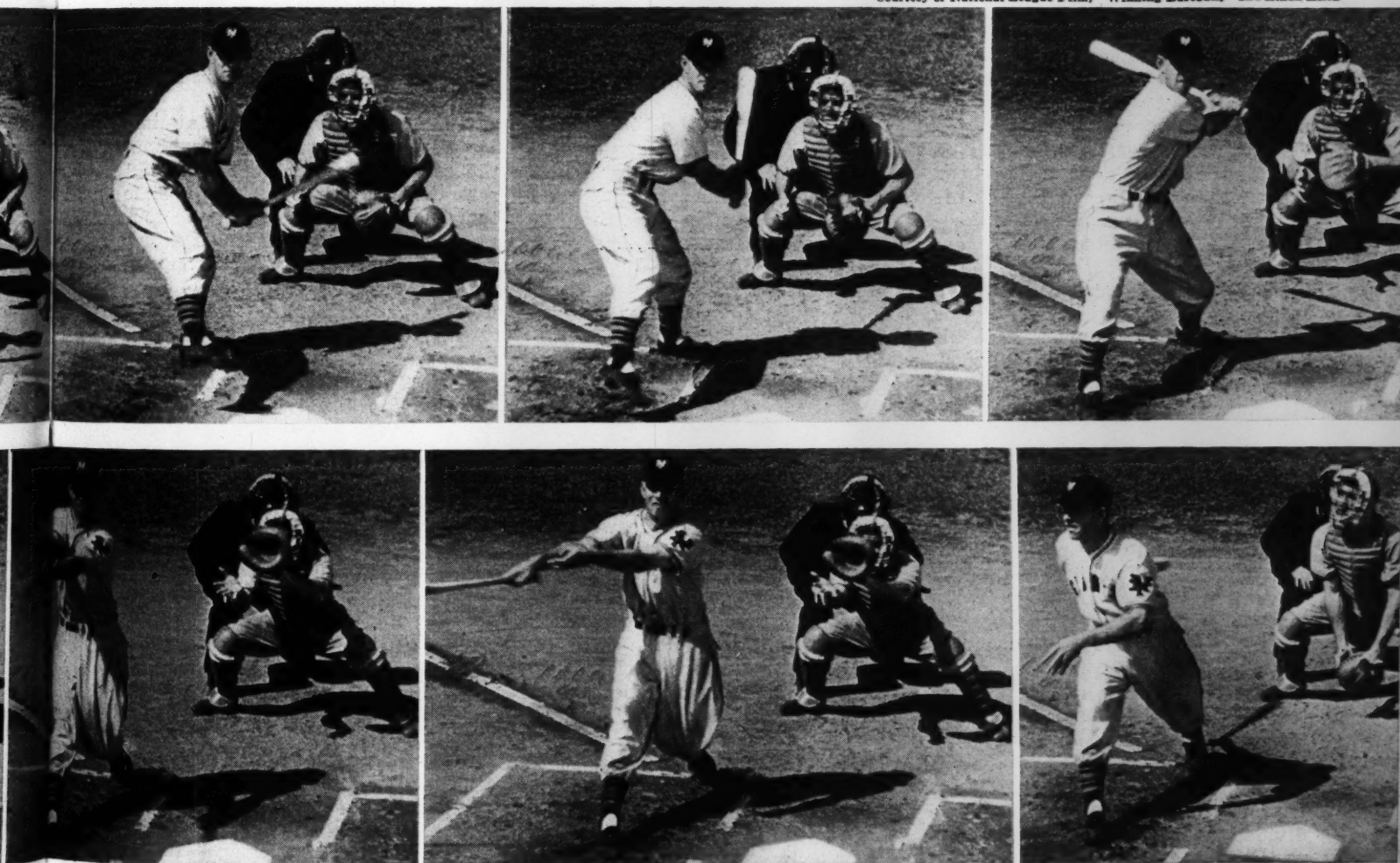
1. The run scores and the batter goes to first base. (Rule 47, Sec. 10.)
2. The infield fly rule does not apply as the ball is a foul ball. (Rule 38.)
3. Runner leaving a base before a fly ball is caught by a player. (Rule 49, Sec. 10.) Runner advancing or obliged to return to a base, fails to touch the bases. (Rule 49, Sec. 13.) Runner running to first base over-runs the bag, attempts to run to second, before returning to first base, he forfeits the exemption of over-running the bag. (Rule 49, Sec. 18.)
4. Pitcher made a balk, run scores

and the batsman continues at bat. (Rule 31, Sec. 8; Rule 47, Sec. 3; Rule 32, Sec. 2.)

5. Double play. (Rule 44, Sec. 6; Rule 49, Sec. 9.)
6. Runner goes back to second base, batter is credited with a base hit, single only. (Rule 48, Sec. 6.)
7. Runner is out, batsman continues at bat. (Rule 44, 48, Sec. 5, 7.) A. Runner is out, batter remains at bat. (Rule 44, Sec. 5.) B. Runner is out, batter remains at bat. (Rule 49, Sec. 15.)
8. Fair ball, two-base hit. (Rule 37; Rule 41, Sec. 3.)
9. The runner who was originally on third base is safe. (Rule 45, Sec. 3.)
10. Player who hit the ball is out. (Rule 49, Sec. 16.)
11. The batsman was out, no runs can score. (Rule 44, Sec. 1.)

MEL OTT of the New York Giants, one of the truly great batters in baseball, is probably the most unorthodox as well, having an extraordinary hitch in his style. Using a modified choke grip, he stands to the rear and inside of the batter's box with the feet moderately spread. Instead of taking the conventional low step toward the pitcher, he first lifts his front leg high and then steps. The bat is whipped parallel to the ground with a loose-arm action and the wrists snapped powerfully at the time of contact. He places his entire weight behind the swing and follows through very nicely in the direction of the flight.

Courtesy of National League Film, "Winning Baseball," and Ethan Allen



HOW STRENUOUS IS BASKETBALL?

By E. A. Thomas

Mr. Thomas' survey proves that the schoolboy game is not as taxing as it's cracked up to be

As commissioner of the Kansas State High School Activities Association and National Federation representative on the N.C.A.A. Track and Field Rules Committee, E. A. Thomas ranks as one of the foremost scholastic athletic administrators in the country. His study is based upon a thesis E. A. Uhrlaub, former basketball coach at Salina, Kan., High School, submitted to the graduate school of the University of Kansas in partial fulfillment for his Master's Degree.

SPECULATION is rife among coaches, physical education teachers and others interested in the welfare of young athletes, regarding the strenuousness of basketball and whether or not it is injurious to high school boys.

Many who favor the restoration of the center jump contend that the new method of putting the ball into play following a goal, makes the game too strenuous by placing an unfair demand upon the already severely-taxed resources of the player. Others vehemently deny this. While still others frankly don't know one way or the other.

It was with this question in mind that E. A. Uhrlaub (see introduction above) undertook his recent study. In Mr. Uhrlaub's own words,

"An attempt was made to determine exactly how active high school players really are. All movements executed by a player at a speed greater than a walk, whether on offense or defense, was considered activity. We also attempted to determine the amount of actual time it takes to play a game; to draw a comparison between the activity, or position, of the player and his actual playing time; and to compare the state Class A tournament players with the other groups."

In the collection of data, the movements of each player were timed with stop watches and recorded. The timers were instructed to start their watches as soon as activity began and to stop them when activity ceased. The amount of movement for each quarter was recorded separately. Each timer was assigned a specific position which included the starting player and his replacements. Also recorded were the total elapsed-time of quarters, intermissions and the game as a whole.

One hundred forty-nine positions were timed in 61 games, which were divided as follows: 13 league and non-league games; 7 from a county

league tournament; 10 from one of the 49 district elimination tournaments; 15 from one of the regional elimination tournaments; and 16 games from the state Class A tournament.

Data collected on the 149 individual cases (see Table 1) show that the average activity of a high school player in a quarter varied from 2 minutes 1.6 seconds for the first quarter to 2 minutes 17.2 seconds for the fourth quarter. The average amount of activity for an entire game was 8 minutes and 31.4 seconds, or 31.4 seconds more than one-fourth of the regular playing time (32 minutes).

FORWARDS. All in all the movements of the forwards varied only slightly from quarter to quarter. The total amount of action per game was 9 minutes and 6 seconds. The average activity of all forwards in the state Class A tournament (C-32) was less than the others combined. This probably was due to the superior technique of the players in the state tourney. As a rule the smarter, more experienced boy can accomplish more than the less-gifted player, at less physiological cost.

CENTERS. The centers playing in the state tourney moved nearly two minutes less per game than those timed in the other games. Although this may be attributed in part to superior technique, another factor en-

ters the picture as well. Most of the centers in the state meet played the post type of offense, deploying in stationary positions near the basket rather than scurrying around for an opening.

GUARDS. The average playing time for 55 guard positions throughout the season was 7 minutes and 35.1 seconds. At no time during the state tourney did any guard on the four teams checked move as much as two minutes per quarter! Their range of action per quarter ran from 1 minute 34.3 seconds to 1 minute 52.3 seconds, whereas the average of all cases was from 1 minute 46.8 seconds to 2 minutes 5.6 seconds.

Championship style was probably the chief factor for this phenomenon. On the whole the tournament teams used set plays which found the guards usually passing the ball around for an opening rather than running or dribbling.

Comparing the combined average time of the tournament players with that of all the others, the results show that the activity of the latter group was 4 minutes and 43.1 seconds greater per game—with the greatest discrepancies in the center positions.

Only 9.5 percent of the total cases timed were active three or more minutes a quarter. The percentage was smallest in the Class B district

(Continued on page 30)

TABLE I

Average Activity of Players

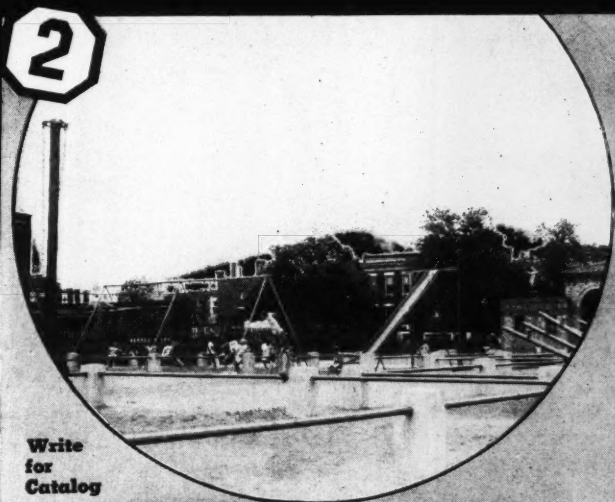
ALL PLAYERS					
No. of Cases*	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Entire Game
149	2:01.6	2:04.1	2:08.5	2:17.2	8:31.4
FORWARDS					
A—56	2:11.0	2:16.6	2:16.8	2:21.6	9:06.0
B—24	2:14.3	2:31.4	2:25.7	2:23.8	9:35.2
C—32	2:08.5	2:05.5	2:10.0	2:20.0	8:44.0
CENTERS					
A—38	2:12.0	2:09.7	2:15.8	2:27.1	9:04.6
B—22	2:23.8	2:23.9	2:28.9	2:38.0	9:54.6
C—16	1:55.9	1:50.3	1:57.8	2:12.0	7:56.0
GUARDS					
A—55	1:46.8	1:47.7	1:55.0	2:05.6	7:35.1
B—23	1:58.3	2:02.8	2:14.2	2:24.4	8:39.7
C—32	1:38.5	1:34.3	1:41.3	1:52.3	6:46.4

*In this column the letter "A" signifies all cases for the particular position, "B" all cases exclusive of state Class A play and "C" state Class A play exclusively.

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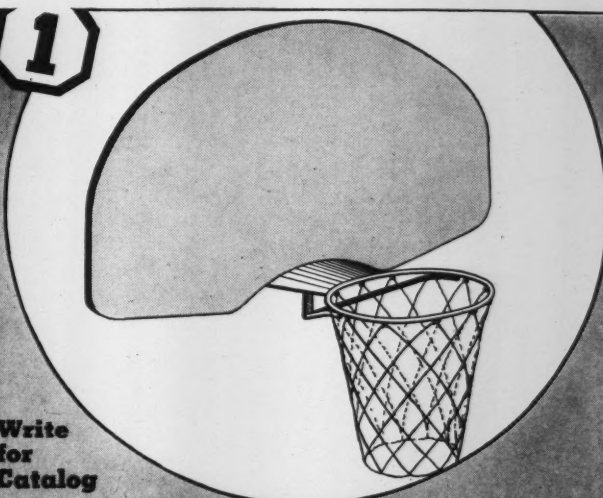


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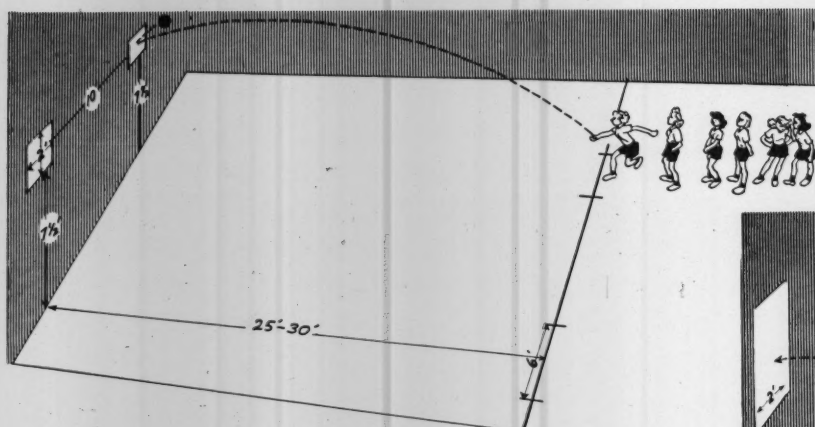
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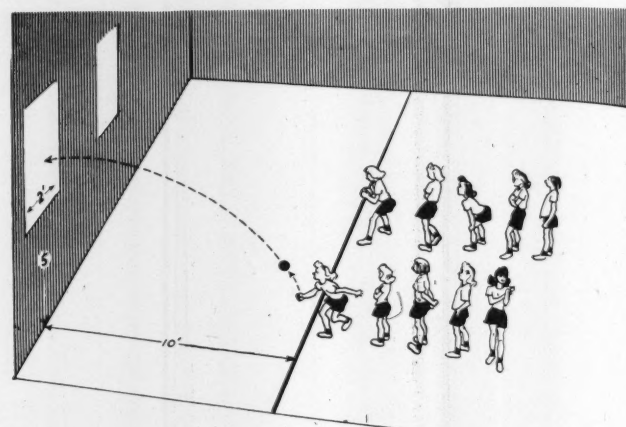
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Left (Diag. 1): Each girl serves, retrieves and passes to the next in line.

Below (Diag. 2): Practice plan for volleying or handling the rebound.



VOLLEYBALL DRILLS

By Josephine Burke

Miss Josephine Burke's practice suggestions for volleyball suffix her two articles on skills in the October and November issues. An instructor of physical education at Hunter College (N. Y.), she is also a member of the national Sub-Committee on Volley Ball for girls and director of the recently produced 16-mm. film on volleyball techniques (Scholastic Coach Bookshop).

AS THE strength of a building depends on the makeup of each brick and how it fits into the scheme of the entire structure, so does the strength of a volleyball team depend on the strength of each player and how she fits into the pattern of teamwork.

Practice drills, then, must have a two-fold purpose: first, to develop individual skills to a high degree; and, second, to coordinate these skills to the best possible advantage of the team as a whole. Either simple games which stress a technique, or routine plays in set patterns, will help produce a winning combination.

When working with large classes, it is best to divide the group into squads. Each squad may be given a specific technique to practice in a definite area of the gym. After ten to fifteen minutes on each technique, the squads may be rotated.

The walls of the gym can be utilized for special techniques, such as, controlling the ball, developing wrist action, playing the ball from the net, etc. The corners of the gym are excellent practice sites for spiking. The girl does not have to worry about hitting a teammate across the net—the wall takes the beating—and no time is wasted running after the ball, as the walls dam the roll.

The net can be strung tightly enough across the corner for the practice of net ball plays. A taut

net is essential in order to get the real feel of the play and the proper timing. In ordering volleyball standards, therefore, coaches should make certain they are heavy enough to permit a strong pull on the net. If the standards are too light, they may topple under any sort of pressure or give a permanent droop to the net.

The center of the gym may be used for mass practice of techniques in relay formation, or for the playing of an official game.

The following games and drills are effective and interesting means of developing skills.

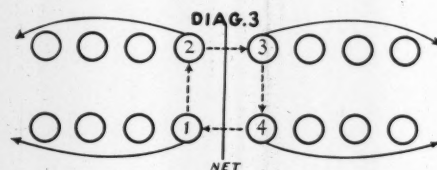
Diag. 1: Spot Serving Against the Wall. Draw two-foot squares on the wall seven and a half feet above the floor line. Each square should be at least ten feet apart so that the squads do not interfere with each other. Next, draw a serving line 25 to 30 feet from the wall and parallel to it.

Each squad may be given a six-foot serving area. The girls serve and retrieve the ball themselves, passing it to the next in line. The players should be encouraged to keep shifting their serving positions in order to master the various angle serves. If more than one squad is working on the same wall, they should coordinate their efforts and watch for the rebounds.

Diag. 2: Volleying or Handling the Rebound. Draw a rectangle two feet wide and five feet long on the wall about five feet from the floor. The squad stands in a single line behind the leader, who is ten feet from the wall.

The first girl throws the ball against the wall and then goes to the end of the line. The second girl

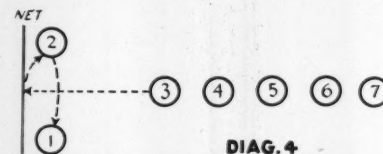
follows up the ball, volleys it back against the wall within the rectangle and then also goes to the end of the line. Play continues until all have had at least one turn.



Diag. 3: Setting Up the Ball. This drill can be practiced in the center of the gym where there is plenty of room. Each squad is divided into two, with each half forming a double line on either side of the net, facing the net.

No. 1 sets up the ball for 2 and then goes to the end of her line. No. 2 sends the ball over the net to 3 and goes to the end of her line. No. 3 sets up the ball for 4 and, like the others, goes to the end of her line. No. 4 sends it back over the net to the new leader of line 1 and then also goes to the rear.

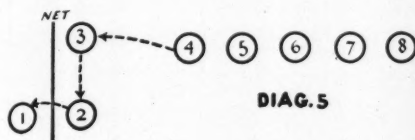
Play continues until all have had an opportunity to handle the ball.



Diag. 4: Playing the Ball from the Net. The squad forms a single line, one behind the other, with the leader facing the net. Two players, 1 and 2, stand with their sides to the net, facing each other. No. 3, about ten feet from the net, throws the ball into the net. No. 2 recovers the ball as it caroms off the net and

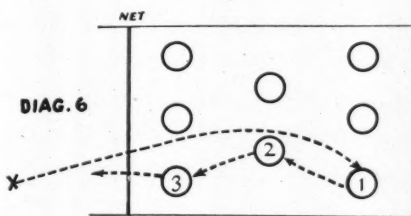
sends it to 1. The latter, in turn, wafts it to the next girl in line.

As soon as 4 receives the ball, 3 takes 2's place at the net, 2 takes 1's place, and 1 goes to the end of the line.



DIAG. 5

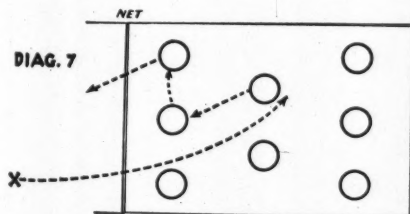
Diag. 5: Spike or Kill. The squad lines up the same as before, but with a third player on the other side of the net to recover the ball. No. 4 throws the ball to 3, who sets it up for 2. The latter spikes it. No. 1 attempts to recover the ball or to block it, and send it to the next in line.



DIAG. 6

Diag. 6: Straight Line Play. This play is very effective when the ball is blocked in the back line, especially on the left side. The left back (1) passes the ball to the left center (2) who sets it up for the left forward (3). The ball is set up to the right of the forward and high above the net, to facilitate the kill.

The play can be executed in a diagonal line, the left center setting up the ball for the right forward.



DIAG. 7

Diag. 7: Center Forward, or Zig-Zag, Play. The center forward on most teams is the keystone of the attack. She tries to block all balls coming over the net or else sets up the ball for the right or left forward to kill.

Usually balls that pass low over the net reach the center line. If the right center plays the ball, she passes it to the center forward who sets it up for the right forward to spike. If the left center gets it, the play is made to the left.

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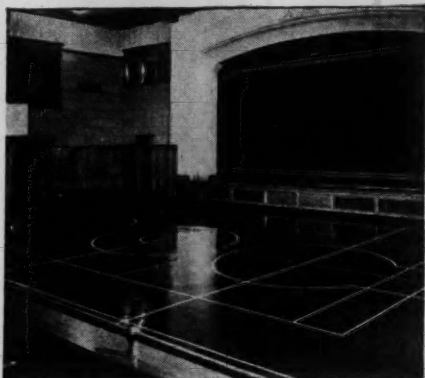


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Basketball Activity Study

(Continued from page 26)

and state Class A tournaments. On the average, by positions, centers were most active, followed by forwards and then guards.

In the Class B district tournament not a single forward of the 28 cases timed moved as much as three minutes a quarter. In league and non-league games, 41.6 percent of all centers timed were active at least three minutes each quarter.

Table 2 outlines the two extremes of the study: the greatest and the least amounts of activity that were recorded for each of the various positions in a single game.

Table 2

MAXIMUM ACTIVITY		
Position	A*	B*
Forward	14.29	11.38
Center	13.58	10.47
Guard	15.23	13.47
MINIMUM ACTIVITY		
Forward	5.14	6.37
Center	7.41	6.04
Guard	4.08	3.39
*A—Individual cases excluding state Class A tournament; B—Individual cases in state tourney.		

The table reveals that the players in the state tourney (column B) were from one to three minutes less active than the players in the other groups. One guard in the state tour-

ney bestirred himself for only 3 minutes and 39 seconds, less than an average of 1 minute per quarter.

The average elapsed-time consumed in playing each quarter and other pertinent data are shown in Table 3. It will be noted that more time was required for each subsequent quarter. It took an average of 2.36 minutes more to finish the fourth quarter than the first.

Comparing the different groups of teams it was found that the state tournament teams completed their games in faster time than any other group. Regional tournament teams required an average of 66.78 minutes per game, while state tournament games required only 60.96 minutes per contest.

On the whole approximately four more minutes were consumed for interruptions than for intermissions. Interruptions were classified as time for substitutions, calling of fouls, free throwing, time-outs taken by teams and time-outs taken by the officials. Intermissions were classified as rest periods between quarters and halves.

Fouls were recorded for 12 of the regional tournament games and for all games in the state Class A tournament. The average number of fouls called in the regional tourney was 26.6 per game and in the state meet the average was 17.6 per game.

TABLE 3

TIME CONSUMED IN PLAYING EACH QUARTER					
No. of Games	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
A—61	11.58	12.02	12.48	13.94	
B—13	12.30	13.00	13.00	13.92	
C—7	11.14	12.28	12.14	14.57	
D—10	12.05	11.30	12.50	13.60	
E—15	11.86	12.73	12.93	14.93	
F—16	10.62	10.90	11.75	12.97	
AVERAGE TIME OF GAME					
No. of Cases	Actual Time of Game	Intermissions	Interruptions	Avg. No. Fouls	Total Time for Game
A—61	32	14.38	18.02	*	64.40
B—13	32	14.61	20.22	*	66.83
C—7	32	14.00	18.13	*	64.13
D—10	32	14.90	17.45	*	64.35
E—15	32	14.33	20.45	26.6	66.78
F—16	32	14.72	14.24	17.6	60.96
*Statistics not available.					
A—All games timed during basketball season.					
B—League and non-league games.					
C—A county league tournament.					
D—A Class B district tournament.					
E—A regional tournament.					
F—State Class A tournament.					

Summary of data

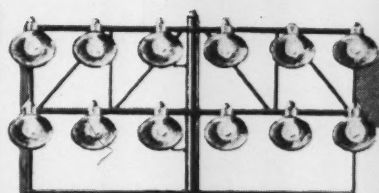
Mr. Uhrlaub has summarized his data as follows:

1. The average activity of high school players in a game of basketball is 8 minutes and 31.4 seconds.
 2. Intermissions and interruptions consume 32.4 minutes.
 3. The average length of time to play a game is 64.4 minutes.
 4. More time is now consumed for interruptions and intermissions than 15 years ago.
 5. Guards are the least active players.
 6. Less fouls are called in state tournament games than in regional meets.
 7. As a game progresses the action increases.
 8. The least amount of action in any quarter for any single position was 49 seconds.
 9. The greatest amount of action in any quarter at any position was 4 minutes and 58 seconds.
 10. The least amount of activity in an entire game at a single position was 3 minutes and 39 seconds.
 11. The greatest amount of activity in an entire game at a single position was 15 minutes and 23 seconds.
 12. Time consumed in playing each quarter increases as the game progresses.
 13. Only 9.5 percent of the players at various positions were active three or more minutes per quarter.
- It should be remembered that in Mr. Uhrlaub's use of the term "action" or "activity" he does not take into account the time during which players pass the ball while standing or walking. Neither does he take into account the action or activity of players who are guarding, unless they are moving faster than a walk.

His study indicates that players do not operate at high speed for excessive periods of time. It should not be inferred, however, that during the time not recorded as "action time," the players are not busy with the many important activities which do not require the player to run.

From the results of the study it would appear that our modern brand of ball is not the exhausting activity some alarmists crack it up to be. The center tapless game may exact a greater physiological toll than the old game, but the difference probably is not sufficiently great to affect the players seriously.

As yet no evidence has been advanced that proves you can damage a healthy heart by exercise. Until that time it is ridiculous to contend that basketball is "dangerous."



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CHAMPIONSHIP TECHNIQUE IN TRACK AND FIELD. By Dean B. Cromwell and Al Wesson. Pp. 312. Illustrated—photographs. New York: Whittlesey House (McGraw-Hill Book Co.). \$3.

THE happy collaboration of Dean Cromwell and Al Wesson makes this a book worth reading whether you are a mere bystander (like us) or a coach seeking further enlightenment on the ingredients of championship style.

Dean Cromwell holds an enviable place in the lineup of the spiked shoe coaching fraternity. For 33 years he has been one of the masters in the art of instruction and development. His record at the University of Southern California is almost unbelievable. His teams have won nine I.C.4-A championships and nine N.C.A.A. titles! Add to this the feats of his boys in Olympic competition and you can well understand why he is called the "Maker of Champions."

His book diverges somewhat from the beaten path. While he (with the assistance, of course, of Al Wesson) covers the technique of the individual events in conventional fashion, he punctuates the text with pertinent historical data and anecdotes as well. He expounds the styles of the champions and their influence on the events in general.

He is dogmatic about nothing. As he says he cannot afford to be. "The greatest teacher of all is the natural form given to athletes by Mother Nature. I have spent my years in watching athletes in action and in learning from them. Frequently I have been able to pass on what I learned from one athlete to another. In this way I have fooled a few people into thinking I'm a coach."

Each chapter (there is one for each of the events) is illustrated with an exceptionally good two-page spread of progressive action pictures and captions. A group of his own champions do the modeling. Since Cromwell is particularly famous for his work with sprinters and pole vaulters, *Scholastic Coach* obtained permission from the publishers to reprint parts of these two chapters. The information follows.

The sprints

Start, stride, and finish are the usual divisions of the 100-yard dash when we take it apart to examine its mechanics.

Starting holes should be dug care-

fully to give the feet firm support for the opening spring. The back of the first hole should be about a foot behind the starting line. The back of this first hole is dug out at a slant to accommodate the angle of the foot when it is at rest in it.

The location of the second hole is determined by kneeling. The knee of the rear leg should be even with the toe of the front foot or possibly a little behind it. When the second hole is dug, the back of it should be nearly perpendicular so that it will support comfortably the ball of the rear foot.

The holes should be about two and a half or three inches deep. One of the principal things to be watched is the firmness of the backs of the holes, for the ground must not give way when sudden pressure is applied.

When the starter announces, "On your mark!" the athlete places his forward foot, usually his left, in the first hole. When that one is comfortably set, he kneels and places his rear foot firmly up against the back of the second hole. It is well to move the feet a little and to exert some pressure to make sure that the footing is firm.

With the feet well set in the holes, the runner places his fingers up to the starting line. The fingers should be well spread out in a tripod position. Since the runner will want his arms to swing clear of his trunk when he starts, he should place his hands far enough apart so that they are at a point just outside his hips.

The starter's signal "Get set" brings the knee of the rear leg about three inches off the ground and with this motion the body moves forward. The main point here is to have the athlete's back parallel with the ground. A common fault is to raise the buttocks too high.

When the athlete has made sure that the line of his back is correct, he should try to have his weight evenly divided between the forward leg and the arms. The body should be moved forward in a natural position that will bring the shoulders above a point just beyond the starting line. In order to avoid tenseness the runner should focus his eyes on a point seven or eight yards out in front.

When the athlete comes up to the "Get set" position, he should take a deep breath. He holds his breath and does not exhale until he is well down the track and his exertions call for more air.

When the starting gun goes off, the runner pushes his feet hard against both starting holes and springs from his marks. Arm action starts at the same moment. If the rear foot is the right foot, the left arm is thrust forward as the back leg swings up from the starting hole. At the same time the right arm swings back.

The first thing for the runner to remember when he springs from his starting holes is to lean well forward. If he does this, he will find it necessary to bring his legs up high to keep from falling. In taking his first step the runner should not raise his foot more than six inches off the ground.

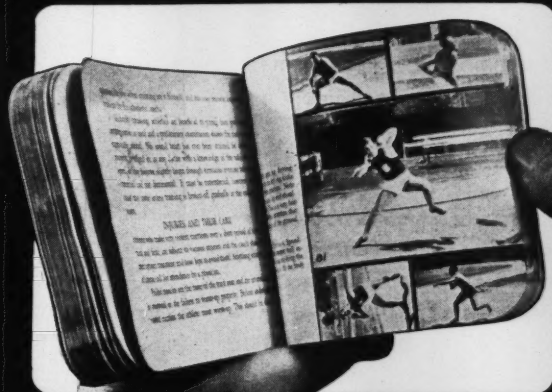
In full stride the sprinter must bring his knees up high in front and thrust them down violently to get the rebound that creates his forward drive. The arms should be bent slightly at the elbow as the runner swings them along. Although it is advisable to try to swing the arms straight forward, no harm is done if there is a slight movement of them across the chest. Hands should be carried open with the fingers assuming a natural, relaxed, slightly bent position.

The pole vault

The first step in preparing to make a vault is to locate the point at which the take-off foot will leave the ground. This is done by standing on the runway facing the take-off box and placing the base of the pole in the slot. The vaulter then raises the pole over his head and holds it there with both hands. If he is right-handed, his right hand will be the top one. The left hand should not be tight against the right, a little space of from four to six inches being a good distance to keep them apart.

A system of two check marks will ensure reaching the take-off properly. The checks are measured back from the standards so that the mark that becomes the second check is determined first. The first check is placed at a point between 60 and 70 feet from the uprights, depending on the length of the vaulter's stride and on the number of steps he wishes to use from this check to the take-off. The next check should be farther back from the standards and should indicate the start of the run. This mark is usually approximately 30 feet from the other check. Both checks should be so located that the vaulter will hit each with his take-off foot.

In carrying the pole the vaulter
(Concluded on page 37)



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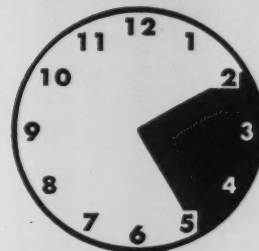
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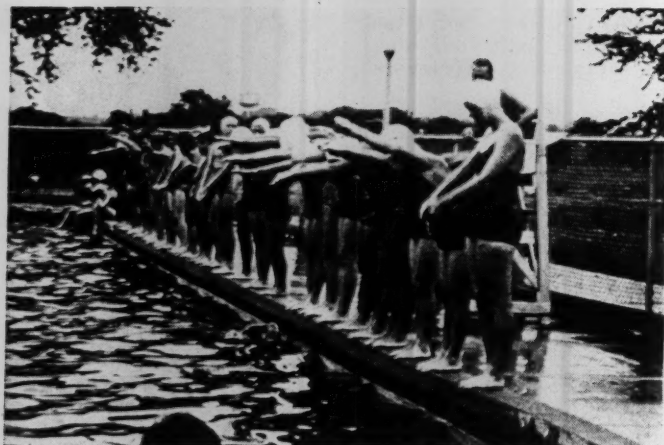
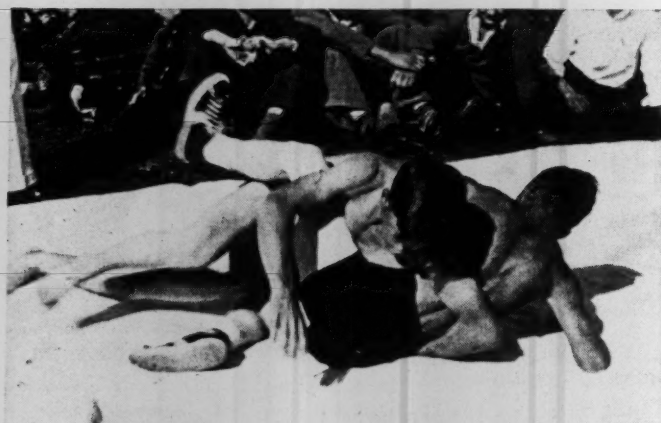
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New Film

"**M**AKING the Most of Playtime" is a 16-millimeter sound film photographed in Kodachrome, produced by the Athletic Institute and sponsored by the American Legion and the N.C.A.A.

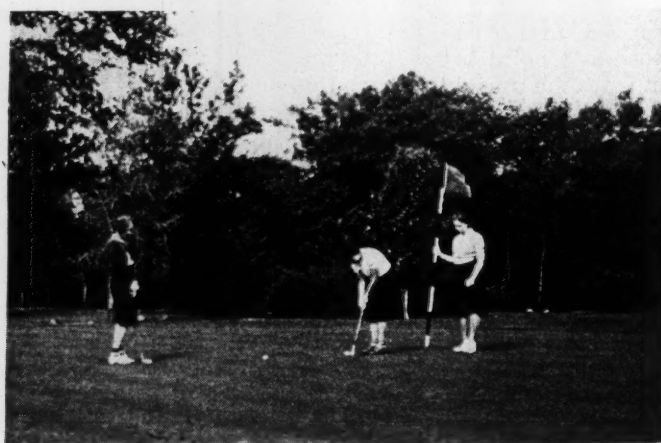
It is aimed not so much at schools as at civic bodies who are interested in promoting recreation in their communities. As such it serves a good, utilitarian purpose, helping stimulate interest in sports and furnishing practical ideas on how to increase and organize community recreational facilities.

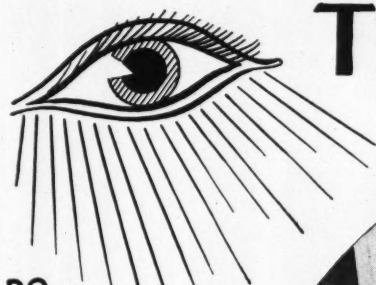


An idea of the way this is done may be gleaned from these shots. Each picture represents an instructional unit of a different recreational activity. The locales are diverse, as an effort was made to make the film nationally representative.

Of particular interest in the film are scenes showing various aspects of high school intramural programs in Minnesota. The film shows in detail how programs can be devised to provide sport and recreation for entire student bodies.

The film will be distributed nationally through the American Legion posts. Inquiries may be addressed to the McCormick Educational Promotional Bureau, 209 South State Street, Chicago, Ill.



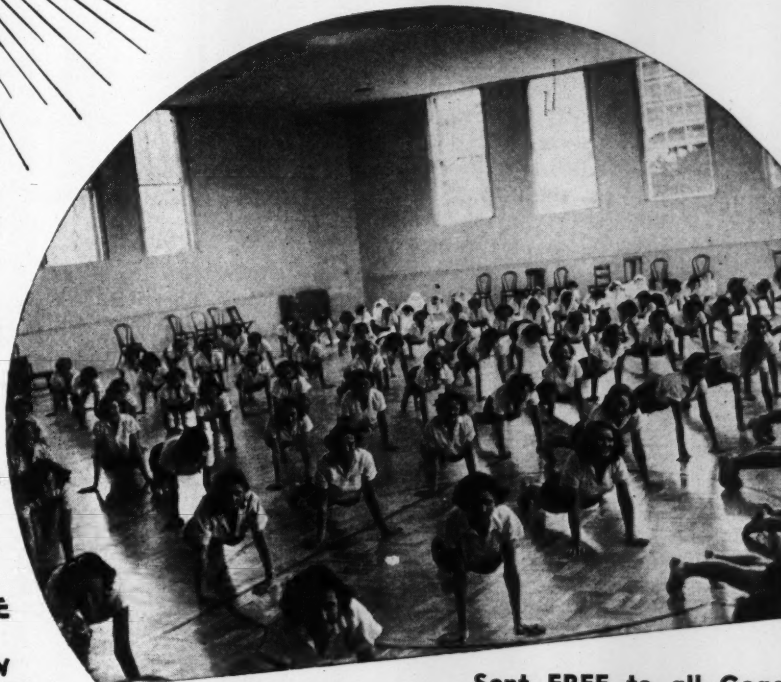


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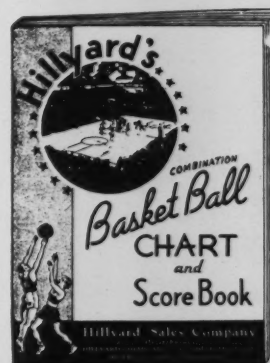
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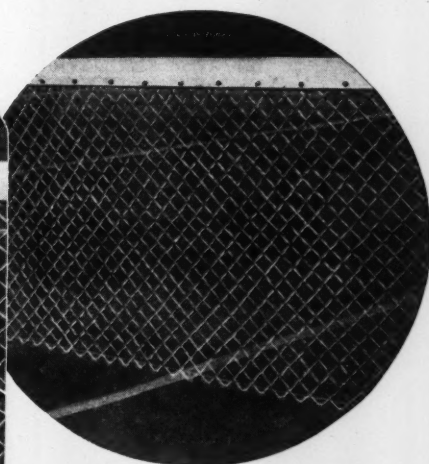
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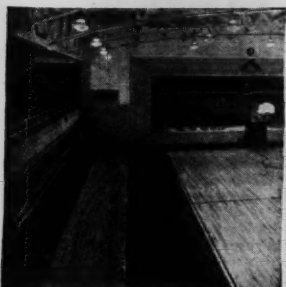
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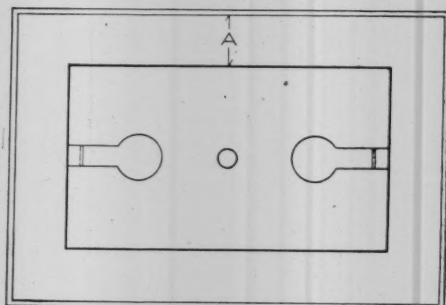


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HIGH SCHOOL HONOR ROLL

By E. A. Thomas

NEVER has there been such interest in high school track and field as there is at the present time. New tracks and stadia, better coaching and improved methods of staging meets have all played their part in luring more boys into the sport and in creating greater spectator interest.

One of the features of the new track program that has come to mean a great deal to coaches and enthusiasts throughout the country is the national interscholastic honor roll, which lists the season's top-ranking performances in all the events. The 1940 roll of honor may be found in the latest N.C.A.A. Track and Field Guide. Following is a list of the three top men in each event:

100-YARD DASH

Morris (Huntington Beach, Cal.) . 9.6
Jenkins (Compton, Calif.) 9.7
Six-way tie at 9.8

220-YARD DASH

Morris (Huntington Beach) 20.7
Tracy (Chris. Bros., St. Louis) . . 21.1
Reimers (Tulsa Central, Okla.) . . 21.4

440-YARD DASH

Lewis (Compton, Calif.) 48.8
Morris (Huntington Beach) 49.4
Five-way tie at 49.5

880-YARD RUN

Burnham (Lebanon, N. H.) 1:54.9
Lane (San Rafael, Calif.) 1:57.5
Short (Hillside, N. J.) 1:58.5

MILE RUN

Hart (Northeast HS, Philadel.) 4:25.6
Hillman (Bayside HS, N. Y.) . . . 4:26.3
Lux (Cooley HS, Detroit) 4:26.6

120-YARD HIGH HURDLES

Smith (Maine Des Plaines, Ill.) . . 14.4
Pruitt (Independence, Kan.) 14.6
Reiss (Burlingame, Calif.) 14.6
Satterfield (Man. Arts, Los Ang.) 14.6

200-YARD LOW HURDLES

Smith (Maine Des Plaines, Ill.) . . 22.1
Pratt (Emporia, Kan.) 22.2
Pruitt (Independence, Kan.) 22.2
Tevis (Beaumont HS, St. Louis) . . 22.2

POLE VAULT

Ferguson (Inglewood, Calif.) . 13'4 3/4"
Johnson (Oakdale, Calif.) 13'1 1/2"
Four-way tie at 13'

SHOT PUT

Robart (Rindge Tech, Cambridge, Mass.) 56'9 7/8"
Minini (Paso Robles, Calif.) . . . 56' 1/4"
Gantt (Durham, N. C.) 55'5"

HIGH JUMP

Smith (Belmont HS, Los Ang.) . 6'6"
Newman (Long Beach, Calif.) . . 6'4 1/8"
Peterson (Lawrence, Kan.) 6'4"
Sims (San Pedro, Calif.) 6'4"

BROAD JUMP

Woods (Coffeyville, Kan.) 24' 4"
Farmer (Proviso Maywood, Ill.) . 24' 3/4"
Smith (Belmont HS, Los Ang.) . 24' 1/2"

DISCUS

Debus (Lincoln, Neb.) 174'2 1/2"
Weber (Janesville, Wis.) 160'5"
Fowler (Woodlawn HS, Birmingham, Ala.) 155'4 1/2"

JAVELIN

Moran (Tucson, Ariz.) 204'11"
Batts (San Ant. Tech, Tex.) . 201' 5 1/2"
Bonahoom (Great Falls, Mont.) 195'11 1/2"

440-YARD RELAY

East HS, Des Moines, Iowa 43.7
Compton, Calif. 43.8
Woodrow Wilson HS, Long Beach, Calif. 43.9

880-YARD RELAY

Compton, Calif. 1:29.5
Hoover HS, Glendale, Calif. . . 1:30
San Diego, Calif. 1:30

MILE RELAY

Bishop Loughlin HS, N. Y. C. 3:25.2
Port Arthur, Tex. 3:25.2
West Catholic HS, Philadelphia 3:27.5

TWO-MILE RELAY

Lincoln HS, Des Moines, Iowa. 8:13.2
Bishop Loughlin HS, N. Y. C. 8:13.6
De LaSalle, N. Y. C. 8:16.2

Howard Debus, of Lincoln, Neb., High School, turned in the lone record breaking effort when he sailed the discus 174 ft. 2 1/2 in., nearly 14 feet farther than any other throw.

Ed Morris, Huntington Beach, Calif., was responsible for a pair of noteworthy dash marks. He was timed in 9.6 for the century and 20.7 for the 220-yard event.

Improvement in the 440 yard competition made this year's qualifying time 49.6 seconds, a figure that would have eliminated half of last year's roll in this event.

When Smith, Maine Des Plaines, Ill., hurdler, skimmed over the 200-yard low hurdles in 22.1 seconds at the West Suburban Conference meet he edged out an even dozen boys who recorded times of 22.6 or better. The greatest group improvement over the previous season was noted in this event.

An abundance of shot putters with long-range sights boosted the low mark in the weight event to 54 ft. 3/4 in. with eight entries listed. Three broad jumps over the 24-ft. mark were turned in, with top honors going to Woods, Coffeyville, Kan., who leaped 24 ft. 4 in. in the Southeast Kansas League meet.

Better results generally were also recorded in the javelin throw. Moran, Tucson, Ariz., led the list with a toss of 204 ft. 11 in., while a 187 ft. 3 in. throw was required to qualify for the roll.

Last year's best times in the two-mile relay were also lowered, with two schools going under 8:14.

New Book

(Continued from page 33)

holds it with the back of the left, or lower, hand up and the back of the right, or upper, hand facing the ground. The pole should be carried in a comfortable manner with the hands anywhere from 18 inches to three feet apart. The pole must be carried out to the side in such a way as not to interfere with the running. It should be pointed straight toward the center of the bar with the forward point of it raised a little.

As the vaulter prepares to go into the air, he slides the base of his pole into the trough, brings his left hand up close to his right, and swings his arms over his head. The arms should be slightly bent at the elbows.

Assuming that the vaulter is right-handed and takes off with his left foot, he continues a striding motion with his right leg as the pole strikes the back of the box and starts to swing upward. During the swing the athlete holds his body close to the pole.

At the completion of the swing the vaulter elevates his feet, kicking them straight up. One of the secrets of championship vaulting is elevating the feet into this handstand position on the vaulting pole. As the feet are kicked high into the air, the body is turned so that the chest is toward the crossbar.

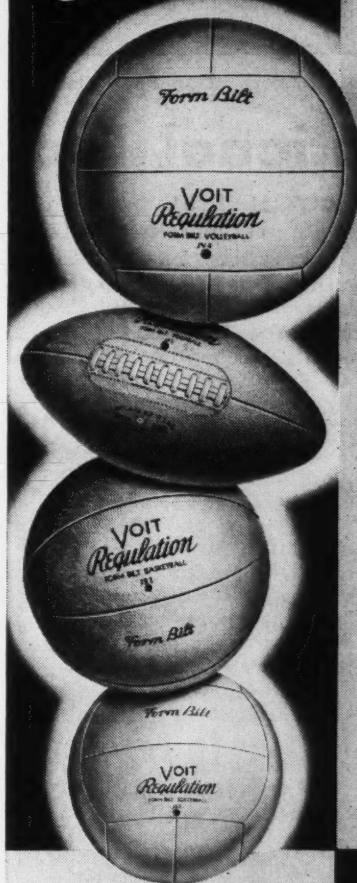
The kick at the end of the swing is up, not out and over the crossbar. The feet may or may not be together at the top of this kick. In elevating the feet the vaulter has to give a tremendous pull with his arms. The arm pull, leg kick, and turn of the body with the chest to the bar at the top of the swing must be coordinated into one continuous motion. It must be executed quickly but without jerkiness.

The vaulter retains his hold on the pole until it is straight up and down to get the full benefit of the final push on it. With the vaulter in a handstand position, this thrust is downward.

When the vaulter makes this final push on the pole, he swings his legs down and releases the stick. The downward leg swing, if done vigorously enough, helps to throw the arms up and clear of the bar.

(The reader should remember that these analyses, as they appear here, are greatly condensed. The book delves into the events in far more detail. The chapter on sprinting alone covers 36 pages.)

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National Federation Meeting

APPROXIMATELY one hundred state athletic administrators representing twenty-eight states gathered in Atlantic City (N. J.) on February 22-24 for the annual meeting of the National Federation of State High School Athletic Associations.

The Executive Committee, which is the administrative force of the national body, held three sessions. They delved thoroughly into the problems regarding the relationship between intra-state groups and that between neighboring state groups.

In North Dakota, for example, there are two separate state-wide bodies. The original group, embracing most of the state's four-year high schools, is a member of the Federation. The other, more recently organized group, controls a number of the consolidated schools.

While relationships are friendly, the Executive Committee is recommending that some type of alliance be formed whereby the consolidated group may secure the benefits of national membership through the present member group.

The Executive Committee was authorized to add several publications to the list already being distributed by the Federation. The new editions will probably include a book on the fundamentals of six-man football, another dealing with interscholastic basketball and an athletic anthology devoted primarily to high school activities.

The Committee received a detailed report on the testing and approval program. They endorsed the recent actions of the Equipment Committee in testing and approving the molded basketball for next year; and also commended the stand of the Interscholastic Football Committee in its legalization of certain molded footballs and for their policy which prohibits the use of any individual autograph on approved footballs and basketballs.

Machinery was sanctioned for the setting up of laboratory schools in each state to work with the national office in the testing program and in the experimental work in basketball, football and track.

Every effort will be made to standardize the method of attaching basketball goals to the new type backboard, so that any approved goal will fit any approved backboard. It is hoped that this may be realized through the friendly cooperation of the manufacturers.

The action of the football rules committee in placing the six-man modifications in the eleven-man rule book was approved. The Executive Committee feels that a single code book serves to the best advantage. This makes it unnecessary for any official, coach or player to buy two separate rule books and will prevent the football fundamentals from varying too widely.

High school representatives on the various rules committees were appointed as follows: *Basketball*—H. V. Porter, Illinois; Floyd Rowe, Ohio; F. P. Maguire, Pennsylvania; and G. W. Phillips, Indiana; *Swimming*—C. E. Forsythe, Michigan; *Wrestling*—Frank D. Gardner, New York; *Track*—E. A. Thomas, Kansas; *Volleyball*—C. L. Walsh, Pennsylvania.

The members of the Interscholastic Football Committee are appointed by states. It was voted to continue the existing plan of having the president of the Federation serve as chairman and the Executive Secretary as secretary. E. A. Thomas was appointed a member of the Editorial Committee.

Secretaries meeting

At the meeting of the executive secretaries of the member state associations, the matter of outside meets and tournaments was discussed and various policies considered. The group reaffirmed its stand that no meet which is advertised as national in character should be sanctioned. It also recommended that every effort be made to acquaint member schools with the necessity of adhering to the sanction requirements.

Several well established meets could easily be brought into the fold with a few modifications in the setup. Organizations which have the best interests of the high school program at heart should be willing to cooperate in this.

The matter of athletic insurance was

thoroughly aired. F. R. Wegner, New York, outlined the present status of such insurance and summarized the injury statistics for the year.

Several significant facts were brought out in his summary. The number of injuries per thousand was slightly higher than that for last year. The fracture injuries were 33 plus per thousand, not including soft tissue injuries. The greatest number of injuries in proportion to exposures occurred during kick plays (kickoff or punt). The next greatest number were during running plays outside the tackles. The safest plays were the forward pass plays. This may be attributed to the fact that in the interscholastic game a large percentage of the passes are thrown from close behind the line where considerable protection is available.

The report indicates that the greatest possibility for increased safety lies in the improvement of protective equipment and in attention to the condition of the field. Injuries increase during dry weather when the field becomes hard and dusty.

W. B. Matthews, Irvington, N. J., discussed the matter of further protection of the abdominal regions through the use of equipment which has been devised for the purpose.

National office activities

At the morning session next day a comprehensive report on the activities of the national office was given by the Executive Secretary. Various phases of the work were mentioned. During the current year more than 100,000 National Federation books were distributed. These publications were made up after a comprehensive program of experimentation and statistical work. They were printed by the Federation and distributed through the state high school associations and through dealers who chose to assist in the distribution. In addition to the book publications, 75,000 game administration bulletins were printed and distributed.

A national press service was started in September in the form of a monthly publication. This is sent only to state high school executive officers for use in their state bulletins. It is estimated that the distribution has reached a total of 1000 bulletin pages. In addition the service has initiated a program of experimentation and observation that probably is the most comprehensive in the history of sports.

In each of the major sports there are year-round activities which start with the publication of the rule book. They continue through the pre-season period when programs and interpretation meetings are planned; through the actual sports season when questions of interpretation arise; through the experimental observation program, the making up of the questionnaire to summarize the results of the experimentation and finally through the planning of the national rules meeting and the details connected

(Continued on page 42)

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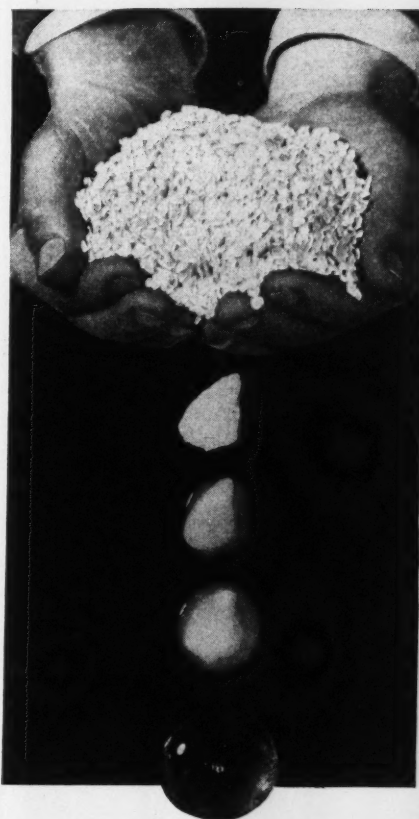
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If you have something for this column send it to Bill Wood, Evanston Township High School, Evanston, Illinois.

The midget league frequently provides the unusual. For example, what a busy boy Captain Bob Harrison, Toledo, Ohio, must have been the night he led his La Grange eighth graders to a 139-8 victory over the Toledo Boys' Club. Captain Bob scored all of his team's 139 points!

(Ed. Note—This, as Hamlet remarked, must give us pause. It seems to us the only way it could be done is as shown above. The defense deploys in a zone and refuses to come out. Captain Bob, a relative of Dan'l Boone, takes up in the middle of the court and pops at the basket as fast as his teammates can feed him a dozen or so balls.

Nick Buzolich, center on the Dzan quintet, San Pedro, Calif., enjoyed a similar experience this season when he scored 84 points in his team's 84-31 rout of the Naval Officers' Club. Who is this fellow Luisetti?

Coach Ed Woster, Hettinger, N. D., believes that his center, Norman Tommerson, deserves a medal of some sort. In two successive games Tommerson was awarded 16 free throws, eight in each game, and made them all.

If you think your player-identification problem is tough, lend a sympathetic ear to this account of Coach Warren Garrison's sad plight. There were five Yosts on his Harvard, Neb., football squad last fall—and three of them were named Bill.

Professional football is still too young to have many traditions behind it in the way of stories, but the anecdotal fund is slowly accumulating. One of the best laugh harvesters is the pride of George Halas, owner-coach of the famous Chicago Bears, and has as its hero his great 230-pound tackle, George Musso.

George, it seems, was the object of a terrific wallop in a hard-fought game and was stretched out flat. Trainer Andy Lotshaw dashed on the field, ready to administer first aid, while on the sidelines the stretcher squad poised for action, waiting to learn the extent of his injury. When Lotshaw reached Musso, he found him just regaining consciousness. The big tackle cocked an eye at the trainer, and then, in all seriousness, inquired: "Andy, how's the crowd taking it?"

Why didn't somebody tell us about this sooner? After absorbing one 52-12 walloping and another 91-0, the six-man team representing Westbrook High went right out and won the championship of its district in the Texas Interscholastic League! Brother, that's a comeback with a capital "C."

Have you received your free copy of the *Famous Slugger Yearbook* and of the *1940 Official Rules of Softball*? Both are yours for the asking. Write Hillerich & Bradsby Co., Louisville, Kentucky.

There is another Haarlow on the march in Chicago. He is Bill's younger brother, Bob, a sensational sharpshooter playing his last year for Calumet High. In a recent game against Englewood young Bob accounted for 33 of his team's 44 points, with 11 field goals and 11 free throws. That's good, indeed, but Bill's mark of 52 points in his last prep game against Morgan Park in 1932 still stands.

Rulo referee rules wrong. The score was tied at 24-all in the six-man game between Westboro, Mo., and Rulo, Neb. With the ball in Westboro's possession on Rulo's eleven-yard line, the referee penalized the defensive team for unnecessary roughness, paced off fifteen yards, planted the ball in the end zone, and awarded Westboro a touchdown. What happened after that we are not at liberty to tell.

How long does it take to get thrown out of a basketball game on personal fouls? Apparently the world's record is now the proud possession of an Ashland College substitute, "Hub" McCuen. Just one minute and thirty seconds after he had entered a game he was on his way to the showers, his evening's work completed. Probably had a date for the country club dance and was just trying out a few holds.

America's youngest, and probably most popular, cheerleader is four-year-old Theresa Shea of Decatur, Ill. From all reports her performance for St. Teresa High School really packs 'em in.

If you're superstitious consider the saga of Coach B. J. Santistevan, Bingham, Utah.

"After winning practically all their games by scores totalling 13, the Bingham American Legion baseball team was put on Pullman car number 13 for the trip to San Diego. At Los Angeles their train pulled out on track 13. They lost to the Sunrise Post of Los Angeles, 13-0.

"This fall the athletic manager brought out a new football on which he had stamped—you guessed it—number 13. This ball was used by the ever-victorious Bingham team in 7 league games. Just before the state championship game, Coach Santistevan passed out 13 complimentary tickets to 13 of his regulars. The boys responded with a 13-0 victory over American Forks. And thus in its thirteenth year of football competition Bingham brought home the Utah State 'B' Championship."

We've been looking for one like this all season and are indebted to Arch Ward of the Chicago *Tribune* for calling attention to it. When the Sycamore, Ill., team entertained Naperville on the home court, "the ball came out of a scramble under the backboard, took one high bounce and

dropped through the net to give Sycamore two points it never expected to score."

Somebody will have to do something about this. Coach J. Langlo's Mariposa, Calif., team has finished its second year of six-man football and so far has been undefeated and untied.

Manager Frankie Frisch of the Pittsburgh Pirates was being kidded recently about his arguments with the umpires.

"There's a new one named Barlick this year," remarked Jimmie Wilson, pilot of the Chicago Cubs. "You can call him Al for short."

"Can I call him anything else for short?" retorted Frankie.

"No—and not for long, either," snapped Coach Honus Lobert of the Phillies.

So far there has been very little dissension among the temperamental troupe of golfers making the Winter Circuit. About the only serious situation which has arisen concerns two of the boys who severed their connection as roommates after the first night in Palm Beach. One claimed that the other's snoring was impossible to tolerate, and that something would have to be done about it. One word led to another and before you know it they had phfft.

"It's not his snoring so much that I object to," explained the complainant. "I might be able to get along if that was all, but the tugboats out in the bay have started answering him."

Hi Yo! Sammy. Slingin' Sammy Baugh, star passer for the Washington Redskins, has just signed a movie contract to star in a 15-chapter serial, *King of the Texas Rangers*.

Legends of the athletic prowess of its native sons are many in the copper country. Greatest of these, of course, concern the immortal George Gipp. Some of the best remembered, however, are attached to the name of Wayne Nester, number one man in Lake Linden's Hall of Heroes. All who saw him in action assert that Nester did everything incomparably well: football, basketball, baseball, skating, skiing.

The quick-witted generalship and all-around ability of the 134-pound dynamo brought victory after victory to Lake Linden. In his senior year he was selected as center on the all-state basketball team—his height, 5 feet 8 inches. It is Coach Nester now of Southeastern High School, Detroit. And the copper country is still talking—Nester's team played for the city football title this year, the first time in Southeastern's history.

Does a coach have to be able to demonstrate in order to be successful? Wausau, Wis., has won 66 consecutive hockey games, but Coach Bill Maxwell can't skate.

BILL WOOD

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Federation Meeting

(Continued from page 39)

with the printing of the various publications for the succeeding season.

The catalytic agent

The principal address of the morning session was delivered by Harold D. Lasswell, political scientist of the Washington School of Psychiatry and visiting Sterling lecturer in the Yale Law School. Dr. Lasswell spoke on the subject "Athletics, the Catalytic Agent."

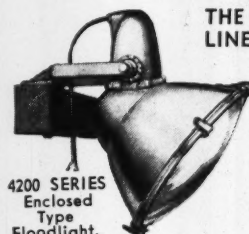
In an interesting manner the speaker called attention to the place athletics hold in the rapidly changing political affairs of the world. As far as athletics are concerned, the tremendous shift of interest to defensive activities and to the building of a social order which can compete against the present old world forces is resulting in an important shift toward politicizing athletics, i. e., toward considering them a tool of political influence. Ever since nations began a scientific use of propaganda, athletics have been recognized as a powerful means of indoctrinating youth with partisan ideas. In republican Germany every political party was quick to direct the activities of its youth along lines consistent with its ideology. The same thing applied in Russia, where its one political party—the Communist party—undertook to control the energies of the entire younger generation, and in Italy when the Fascist party came into power.

In the United States we have thought of athletics as non-political. It has been considered a part of character training, equipping persons to meet defeat with composure and success with modesty. It has been a part of the cultural program of American society.

Politicizing is a function of crises, of threat. The future of athletics in this country is plainly tied up with the larger current of world affairs. We may be sure that there will be a vigorous struggle for control of athletics. Partisan groups take advantage of crises, using them as an excuse to organize athletic units attractive to young people. Many innocent reasons are given and many reputable individual and group names used; but, of course, the purpose is to indoctrinate youth with the partisan political program of the leaders. The problem of the school leaders is to think through the relationship of the athletic program to the crises and also to the long-term interests of a democratic system.

Following a luncheon there was an anniversary program honoring C. W. Whitten. Tributes to his twenty years of efficient service to the Federation were paid by several speakers, and a plaque containing his portrait in porcelain and the seals of the thirty-eight member states, presented to

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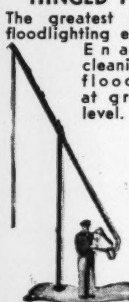


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him. The plaque bore the following inscription:

"For 20 years, your courage, energy, far-sightedness and devotion to high principles have permeated the activities of the National Federation of State High School Athletic Associations, an organization which you helped originate and which has developed under your leadership.

"The nation's school athletic leaders have been inspired by your determination to make athletics contribute to a sound educational program, by your championing of the cause of athletic educators as opposed to athletic promoters, and by your unrelenting opposition to any form of exploitation of youth for profit, prestige or politics. Your acts prove you an Athletic Statesman.

"Your wisdom in husbanding the Federation Funds has made a national office possible. Your leadership and counsel have been of inestimable value.

"Today, on the 20th anniversary of your first service to the National Federation, the officers, the member state executives and countless educational leaders honor you, assure you of the high place you hold in our esteem and express our hope that for many years to come, the schools of the nation will have the benefit of your counsel and inspiration."

Business meeting

At the business meeting of the association a tribute was paid to the late P. A. Jones of Sharon, Pa. This tribute was read by W. E. Griffith of Somerset, Pa., and a resolution of appreciation of Mr. Jones' services to the Federation was adopted.

The state high school association of Kentucky was accepted as a member of the National Federation. Three proposed amendments to the constitution were considered. Two of them were adopted. They were in the nature of clarifications. The proposal to limit interstate contests to schools which are members of their respective state associations or to those which are not eligible to become members but have met affiliated requirements of their home states, was tabled for further study. The primary reason was that a number of states do not have machinery for setting up affiliated requirements. A further study is to be made of the matter and a revised amendment will probably be presented next year.

In the election of members of the Executive Committee, E. R. Stevens of Kansas and H. R. Adams of Utah were unanimously re-elected and W. E. Griffith voted in as a new member. E. R. Stevens was re-elected president of the Committee and R. E. Rawlins re-elected vice-president.

Among the states which were represented by at least three men were: Alabama, Connecticut, Georgia, Illinois, Michigan, New Jersey, Ohio, Pennsylvania, Tennessee and Utah. Illinois had eleven native sons present; Pennsylvania, fourteen.

States with at least two representatives included: Arkansas, Florida, Kansas, Minnesota, South Dakota.

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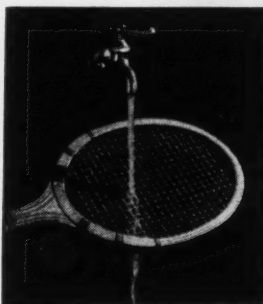
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Forget about your former string worries because of rainy weather. The nylon strings in your racket will not be harmed, because nylon cannot absorb and hold moisture. The string areas of nylon-strung rackets have even been placed *under a faucet* and they have lost none of their strength or "ping"!



Over a decade ago a Du Pont chemist immersed a glass rod into a heated vat. When he removed the rod, he drew with it a slender, sticky strand—the first nylon fiber, the amazing chemical substance, made of coal, air and water. Nylon has already revolutionized women's hosiery, toothbrush and hair brush bristles, and fishing lines and leaders. Now a specially developed type of this new chemical product has been produced for tennis strings.

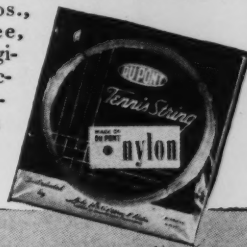
Nylon strings are strong! 500 sets and still going strong... that's what one leading player found with a nylon-strung racket! Exhaustive tests like this have proved that nylon keeps its strength and "bounce" over extraordinarily long periods of play!

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Practically all leading racket manufacturers make nylon-strung rackets for local sporting goods stores. Nylon strings come in 15 and 16 gauges. Any reputable dealer carrying the products of the following distributors sells nylon strings for restringing your racket: Armour & Company, Chicago, Ill.; Johnson Suture Corp., Chicago, Ill.; A. J. Reach, Wright & Ditson, Chicopee, Mass.; A. G. Spalding & Bros., Inc., Chicopee, Mass.; Victor Surgical Gut Manufacturing Co., Chicago, Ill.; Wilson Sporting Goods Co., Chicago, Ill.



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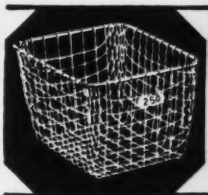
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BASKETBALL QUESTIONNAIRE

By H. V. Porter

Secretary, National Basketball Committee

WHEN the National Basketball Committee convenes on March 30 and 31 to frame the code for 1941-42, they will have before them the fruits of many studies and experiments. Included in the experimental work are statistical studies which show what effect the new type backboards have had on the game, the amount of player activity during the course of a game and the effects of the rules changes which were made last spring.

Along with the results of these studies there will be available the opinions of specialists relative to the rules which were in effect for the first time this season. Coaches who would like to express their own views may do so by filling out the following questionnaire and mailing it to H. V. Porter, 7 South Dearborn St., Chicago, Ill.

Part I. Current Changes

Have rules listed here proved to be satisfactory?

1. Substitution may be made after a successful free throw. Yes..... No.....
2. When ball is out of bounds, through touching player who is on or outside a boundary, it goes to an opponent. Yes..... No.....
3. When a player who has been awarded a free throw is disqualified, his substitute must attempt the throw. Yes..... No.....
4. The new fan-shaped backboard is legal where the home management chooses to install it. Yes..... No.....
5. The first extra period in a game played in quarters is always 3 minutes. Yes..... No.....
6. The official must actually have possession before handing ball to player out of bounds from front court. Yes..... No.....
7. Ball goes into play when placed at disposal of free thrower. Yes..... No.....

Part II. Experimentation, Data

8. Please express opinion:
 - (a) Tempo of game is: too fast..... too slow..... about right.....
 - (b) Scoring is: too high..... too low..... about right.....
 - (c) To promote health: provide more rest periods..... Satisfactory as now played.....
 - (d) Is the present game as interesting and scientific as it was with the center jump? Yes..... No..... Are criticisms valid enough to warrant consideration of reinstatement of center jump with restrictions such as

having jumpers rotate? Yes..... No.....

9. Check below only if you have:

(a) Measured light intensity on any court: Was average foot-candle power at four feet above floor below 10?, above 10?

(b) Coached, played, officiated or managed games on courts with new type backboards: Prefer new type Prefer old type..... Equally satisfactory.....

(c) Used the written name slip method of substituting: Do you prefer this method? Yes..... No.....

(d) Used a basket with a convex flange between the ring and the backboard to prevent ball from coming to rest and to scatter certain rebounds over a wider area: Do you prefer this type? Yes..... No.....

(e) Studied action time and distance traveled during game, record data here: Average distance traveled by one player per (32) (40) minute game: miles. Average time player was in motion faster than a walk: minutes. Average time for one of these runs: seconds.

Part III. Rules for 1941-2

10. Permit substitution any time the ball is dead, including after a field goal. Yes..... No.....

11. (Check one). After a goal:

(a) Require Official to hold ball a specified number of seconds. Yes.....

(b) Award ball to opponent out of bounds at mid-court. Yes.....

(c) Retain present rule. Yes.....

12. If 11a or 11b should be adopted, stop clock after each goal. Yes..... No.....

13. Require Official to go to Scorer's bench on Scorer's signal and complete all substitutions there. Yes..... No.....

14. If connected with College or Independent games check only (a). Otherwise check (b).

(a) In games played in 20 minute halves prescribe a 2-minute intermission the first time ball is dead after 10 minutes. Yes..... No.....

(b) In High School games prescribe the mid-period intermission for all quarters and regardless of whether a charged time-out has occurred in the first four minutes. Yes..... No.....

15. (a) Allow 5 personal fouls before disqualification. Yes..... No.....

(b) If (a) is not adopted, allow one additional personal foul for each extra period. Yes..... No.....

16. Mark basket supports with 2-inch line above end line and consider the part above the court as being in-bounds. Yes..... No.....

17. Standardize basket-backboard attachment mechanism so that any official basket will fit any official backboard. Yes..... No.....

Care of the Legs

(Continued from page 16)

and dashes around an indoor track is not sufficient to produce good, strong leg muscles.

Let us consider the muscles which must function in running. The movements in running are *flexion* of the thigh, which is produced by strong muscles originating from the abdomen (iliacus and psoas); *extension* of the leg, which results when the muscles on the front of the thigh contract (quadriceps); plantar flexion, or *extension of the foot*, which occurs when the muscles on the calf of the leg contract (gastrocnemius).

The action of these three muscles carry the lower extremity forward. Little work is required for these movements. The ability to propel the body forward is acquired when the foot touches the ground. This is the most important period in running, and it is interesting to study what occurs:

1. The whole force of the body is propelled from the sole of the foot in contact with the ground.

2. The calf muscles (gastrocnemius) contract to throw the leg forward; the thigh muscles (quadriceps) contract to straighten the leg and a new muscle (gluteus maximus) contracts to push the trunk forward. This large buttock muscle is the power muscle and it works best when the body is bent forward. This is the muscle which gets the runner off the mark quickly, and is the reason for the crouching start.

3. It is important to remember that every time a muscle contracts, the antagonist muscle must relax. It does not matter how much power you have to push forward. If the opposing muscles do not relax, the runner cannot generate speed. If the "hamstring" muscles in back of the thigh do not relax when the iliopsoas and the quadriceps are going forward, speed will be reduced or the athlete will tear the muscle.

Pulled tendon

Have you ever noticed a runner sailing serenely along, suddenly stop in the middle of the race and clutch the back of his thigh? It happens time and again on every track in the country. What has happened is this: the "hamstring" muscle has failed to relax sufficiently and has torn at its insertion on the bone. This is the condition familiarly known as "pulled tendon."

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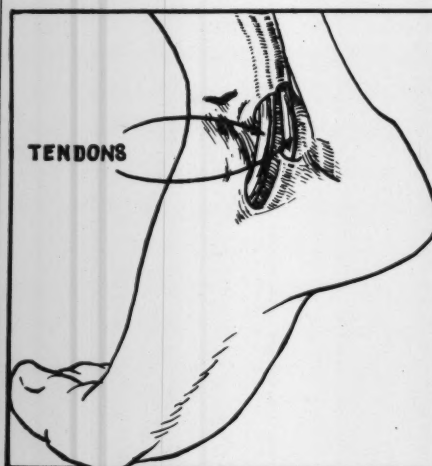
Name
Address
City State

DUNLOP

must be sure the "hamstrings," which run from the pelvis to the leg, thus crossing two joints, is relaxed. Everyone, at one time or another, has observed athletes, especially hurdlers, taking elaborate pains to stretch this muscle before a race. This is a *dangerous* method of relaxing or stretching, these muscles.

Let me illustrate a simpler and better method. You will note that the "hamstrings" are attached to the pelvis. Every time the body is bent forward at the hips this muscle must stretch. To prevent this injury, the athlete should bend his body forward in warming up and massage the back of his thighs. In this fashion he can control the amount of stretching.

When he is able to touch the toes with his fingertips, keeping the knees straight, the "hamstrings" are sufficiently stretched to permit full flexion of the hip and extension of the leg.



Tenosynovitis is a nice, long word but it is a common condition in track. In the accompanying illustration you will notice two tendons going behind the ankle bone. These tendons work in a covering, which is lubricated by a fluid. When they are irritated, the fluid increases. The tendons become painful and swollen.

This condition does not bother the athlete very much when he is running. But upon rising, after sitting a while in class or in a movie, it becomes painful to move. It is a hard thing to correct and needs rest and massage.

The condition is due to stretching the tendons by running on uneven ground. Distant runners who train on banked tracks very often get it. The next time you see a distance man circling a banked track notice the strain put on the tendons behind the ankle bone as he makes a turn.

If you train on such a track do not

COACHES! PEP UP INTRA-MURAL SOFTBALL

CAP, SHIRT AND DESIGN

COMPLETE
FOR

80¢



No. 1. BC7 CAP; 78QS White T Shirt 80c

with Champcraft Design

No. 2. BC7 CAP; 88QS Colored T Shirt 95c

with Champcraft Design

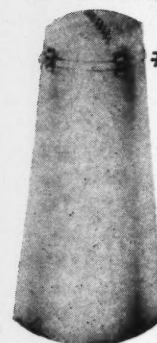
No. 3. BC7 CAP; 20LS Long Sleeve, 2-color

cotton shirt with Champcraft design \$1.10

ORDER NOW

CHAMPION KNITWEAR CO.
Rochester, N. Y.

Petersen FOOTBALL DUMMIES FILLED \$11.00



#80

Weight—65 lbs.
Height—45 in.

Sturdy football
Dummies with
double bottom
and five handles.

WE PAY FREIGHT

Blocking Dummy #81

FILLED \$9.50

Weight 35 lbs.

Height 40 in.

DUMMIES
UNFILLED
each \$7.00

Write for
Catalog

BLOCKING
APRON
\$10.00



PETERSEN & CO.
5561 BAYNTON STREET
PHILADELPHIA, PA.



let your boys do all their running in the same direction and thus put all the strain on the same muscles.

The best strapping for this injury is the stirrup-strip type which prevents the foot from turning, but allows flexion and extension.

Another point to remember in strapping muscle injuries is not to waste good tape by applying it around or over an injured muscle. Let us suppose the runner has injured the muscle in the center of the thigh which extends the leg. Here is a muscle which has torn fibers in it with a blood clot around the injured fibers.

What good does it do to put tape over the injury? No good at all. When you tape over a muscle the tape is anchored to the skin and does not prevent the muscle from moving. No matter how much tape is wrapped over the injury every-time the boy bends his leg the muscle will be stretched and the healing cells pulled open again. It is just like trying to heal a split lip. Every-time you laugh you pull the edges apart and have to start all over again.

Hence, the only way to let the fibers heal is to prevent the knee from bending too far backward. This can be done with an elastic bandage.

Regarding massage

It may come as a surprise to many trainers, but the fact remains that massage does not make a muscle stronger. The only function of massage is to prevent stiffness and to aid in the early recovery of muscle damage.

In running a great amount of waste products—lactic acid—is produced. The better the condition of the muscle, the better equipped it is to utilize this product of metabolism. Therefore, massage is good in the early period of conditioning to prevent stiffness and cramps.

The gentle friction and stroking movements of the hands over the muscles towards the heart help remove these waste products from the muscles, thus enabling the muscle to return to normal much faster.

The only therapeutic value of liniments ("hot stuff") is to irritate the skin, producing an inflammation of the skin and thus bringing more blood to the area—making the area warm. It is not a substitute for massage.

Rubbing with alcohol is not a good procedure. The quick evaporation of the alcohol chills the tissues and leaves them cold, taking out the normal oil from the skin.



AN INVIGORATING RUB-DOWN WITH MCARTHUR SUPER-GYM and SUPER TURK TOWELS

Give your athletes a "spring tonic" . . . furnish them McArthur quality towels. McArthur Super-Gym and Super-Turk Towels give athletes the invigorating rub-down they enjoy after a shower . . . they are towels built of heavy rib construction, woven from two-ply, triple-twisted yarns . . . they stand up under years of rough usage, with a life of from 350 to 700 uses. For long life, economy and satisfaction to your athletes, buy McArthur Towels! Write for complete details.

Western Representative: E. P. Finigan, 314 12th St., San Francisco.

GEO. MCARTHUR & SONS, BARABOO, WIS.

SCHOLASTIC COACH MASTER COUPON

After checking carefully items desired, this coupon may be sent directly to Scholastic Coach advertising department, 220 East 42nd Street, New York, N. Y., from which point the advertiser will be notified of the requests.

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|--|---|---|
| AMERICAN CHAIN & CABLE CO. (35) | DUNLOP TIRE & RUBBER CO. (46) | INTERNATIONAL SPORTS (33) |
| <input type="checkbox"/> Information on Page Stainless Steel Tennis Nets | <input type="checkbox"/> 1941 Golf Book | <input type="checkbox"/> Information on Cine Sports Flip Books |
| AMERICAN WIRE FORM (43) | E. I. DU PONT DE NEMOURS & CO. (43) | JOHNSON & JOHNSON (19) |
| <input type="checkbox"/> Folder on Baskets | <input type="checkbox"/> Information on Nylon Strings | <input type="checkbox"/> Booklet, "Aids for Athletes" |
| W. A. BICKEL & CO. (41) | EASTERN COACHING CLINIC (39) | KAHNFAST SATINS (45) |
| <input type="checkbox"/> Catalog and Instruction on Re-Stringing Equip. | <input type="checkbox"/> Information | <input type="checkbox"/> Swatches |
| BIKE WEB (6) | GENERAL ELECTRIC (23) | KNOX GELATINE (17) |
| <input type="checkbox"/> History of Olympics How Many? | <input type="checkbox"/> Information on Flood-lighting | <input type="checkbox"/> Basketball Weight Charts How many? |
| <input type="checkbox"/> Taping Film Reservation | HILLERICH & BRADSBY (41) | <input type="checkbox"/> Booklet, "Endurance, the Way to Victory in Basketball" How many? |
| JAMES W. BRINE CO. (43) | <input type="checkbox"/> Catalog | LAFAYETTE RADIO (44) |
| <input type="checkbox"/> Catalog on All Sports | <input type="checkbox"/> Booklet, "Famous Sluggers of 1941" | <input type="checkbox"/> Catalog on Public Address Systems |
| CHAMPION KNITWEAR (46) | <input type="checkbox"/> Softball Rule Book How Many? | LANNOM MFG. CO. (See 2nd Cover) |
| <input type="checkbox"/> New 1941 Catalog | HILLYARD SALES CO. (35) | <input type="checkbox"/> Information on Baseballs |
| CONTINENTAL CAR-NA-VAR CORP. (30) | <input type="checkbox"/> "Basketball Chart and Score Book" | LINEN THREAD CO. (2) |
| <input type="checkbox"/> "The Basketball Coach's Record Book" | <input type="checkbox"/> Catalog | <input type="checkbox"/> Folder on Sports Nets |
| DENVER CHEM. CO. (32) | HORN MFG. CO. (42) | G. MCARTHUR & SONS (47) |
| <input type="checkbox"/> Sample Antiphlogistine | <input type="checkbox"/> Illustrated Folder on Bleacher Installations | <input type="checkbox"/> Free School Towel Plan |
| C. B. DOLGE CO. (45) | HUNTINGTON LABS. (5) | |
| <input type="checkbox"/> Brochure on Athlete's Foot | <input type="checkbox"/> Seal-O-San Basketball Digest | |

(Numbers in parentheses denote page on which advertisement may be found)

ON PAGE 48 ARE OTHER LISTINGS AND FORM FOR SIGNATURE

How Athlete's Foot Was Controlled

AT ITHACA, N. Y., over 400 students were examined. 72% had Athlete's Foot. After 30 days treatment using Quinsana* only 3% showed any symptoms of the infection.

AT JACKSON, MISS., over 1200 persons were examined. 74% had Athlete's Foot. After 30 days treatment using Quinsana* only 5% showed any symptoms of the infection.

*QUINSANA is the new alkaline powder developed by The Mennen Company for the treatment of Athlete's Foot. Used two ways: (1) on feet (2) in shoes, it is producing extraordinary results. Write for booklet and samples.

Pharmaceutical Division

The MENNEN COMPANY, NEWARK, N. J.

Here Below

(Continued from page 7)

au contraire, it proves just the opposite—that basketball may be tough on the wind but it's safe.

If we needed any further proof of the author's ignorance on matters physiologic, there's his reference to athletes being "burned out." O tempora, O mores! *That*, again. Hasn't Mr. Fischer heard? "Burned-out" athletes are a myth. There are none. You can't overwork a healthy heart. Over exertion may lead to transient exhaustion or spectacular collapse, but it will never cause organic damage of the heart or any other vital organ. That's not something we figured out with the chemical set we got for Christmas. We have it on every good medical authority.

Our rules committeemen are neither ignoramuses nor mercenaries who slink sinisterly in the shadows of clicking turnstiles. With few exceptions they are men who have prepared themselves for their profession by years of intensive study.

IF MR. FISCHER would have confined his iconoclasms to the technical aspects of perpetual-motion basketball, he would have had our sympathy. Frankly we don't think the game is getting any more scientific. The abolition of the center tap certainly keeps things moving faster but, we think, with less purpose.

The whole idea, nowadays, is to get to your basket "fustest" with the "mostest" men. The ball comes down through the webbing and swoosh! everybody's off to the wars again. The old way the players had to start from center with the defense set and waiting. You had to jockey the ball and sweat grey matter to make a basket. Nowadays baskets are as cheap as rubles.

WHILE we're grouching we'd like to let out a real old-fashioned blast against the whistles on which the referees toot so frequently.

Nowadays a referee gives a frenzied toot on his whistle every time a player even breathes on the back of another. Let one player touch an opponent and the referee, after a shrill blast, transfixes the miscreant with a baleful glare, goes through a few furious motions and roars, "Hacking!" or "Shoving!", whatever it is, and "One shot on YOU!"

We can sympathize with the harassed player who approached the referee after one such interruption and, pointing at the whistle, muttered:

"Mister, do you breathe through that thing?"

SCHOLASTIC COACH MASTER COUPON

(See page 47 for other listings)

(Numbers in parentheses denote page on which advertisement may be found)

- | | | |
|---|---|---|
| CHUCK McGUINNESS (37)
<input type="checkbox"/> Information, Football Advisory Service | PETERSEN & CO. (46)
<input type="checkbox"/> Catalog on Gym Mats, Football Dummies, Boxing Rings | SOLVAY SALES (39)
<input type="checkbox"/> Booklet on How to End Dust and Weeds |
| FRED MEDART MFG. CO. (27)
<input type="checkbox"/> Playground Equipment
<input type="checkbox"/> New Fan-Shape Backboard & Goal
<input type="checkbox"/> Telescopic Gym Seats
<input type="checkbox"/> Gym Mats | J. E. PORTER CORP. (4)
<input type="checkbox"/> Illustrated Folder on New Fan-Shape Backboard
<input type="checkbox"/> Circulars on Gym Equipment | A. G. SPALDING (1)
<input type="checkbox"/> Baseball Catalog |
| MENNEN CO. (48)
<input type="checkbox"/> Booklet on Athlete's Foot
<input type="checkbox"/> Sample of Quinsana How many? | PRENTICE-HALL (44)
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<input type="checkbox"/> Catalog on Floodlighting Poles |
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<input type="checkbox"/> Samples: Perchloron, Tilite | R. C. A. MFG. CO. (15)
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<input type="checkbox"/> Information on Rubber-Covered Softball Bats | VESTAL CHEMICAL LABS. (38)
<input type="checkbox"/> Catalog
<input type="checkbox"/> Booklet, "How to Make Stars" |
| | | VOIT RUBBER CO. (37)
<input type="checkbox"/> Catalog on Rubber Balls |
| | | WILSON SPORTING GOODS (8)
<input type="checkbox"/> Catalog |

NAME _____ POSITION _____
(Principal, coach, athletic director, physical director)

SCHOOL _____ ENROLLMENT _____

CITY _____ STATE _____

No coupon honored unless position is stated

March, 1941

CALLING ALL SOFTBALL PLAYERS *in your school!*



Hundreds of high schools
have enrolled already for
these national intramural

SOFTBALL TOURNAMENTS

Your students will want to have a tournament, if you do not already have one. And, if you do have one, take advantage of the materials offered free by Scholastic Softball Tournaments.

Each school is provided with trophies for every player on the winning team. (12 in all.) Draw-charts, so that a record of the team play may be easily kept on the bulletin board, and other material, will make your handling of the tournament an easy and simple job.

This national program is sponsored by Pepsi-Cola Company to increase interest in organized softball play. It is offered with no obligation of any description. Nothing to buy. Nothing to sell. Merely fill in the coupon below—or send the information in another form—and complete materials will be sent to you.

This program sponsored by Pepsi-Cola Company is managed by Scholastic Coach, from its offices at 220 East 42 Street, New York, N. Y.

Send Coupon for Free Trophies for Your Players

ENROLL YOUR
SCHOOL NOW!

SCHOLASTIC SOFTBALL TOURNAMENTS

220 E. 42nd Street, New York, N. Y.

Please enroll my school

for boys' tournament girls' tournament and send the trophies, etc., to me.
(check) (check)

I anticipate in the boys' tournament and in the girls' tournament.

I would like to start actual playing of games by
(insert date)

My Name Position

Name of School Address

City State Enrollment of school: boys girls